



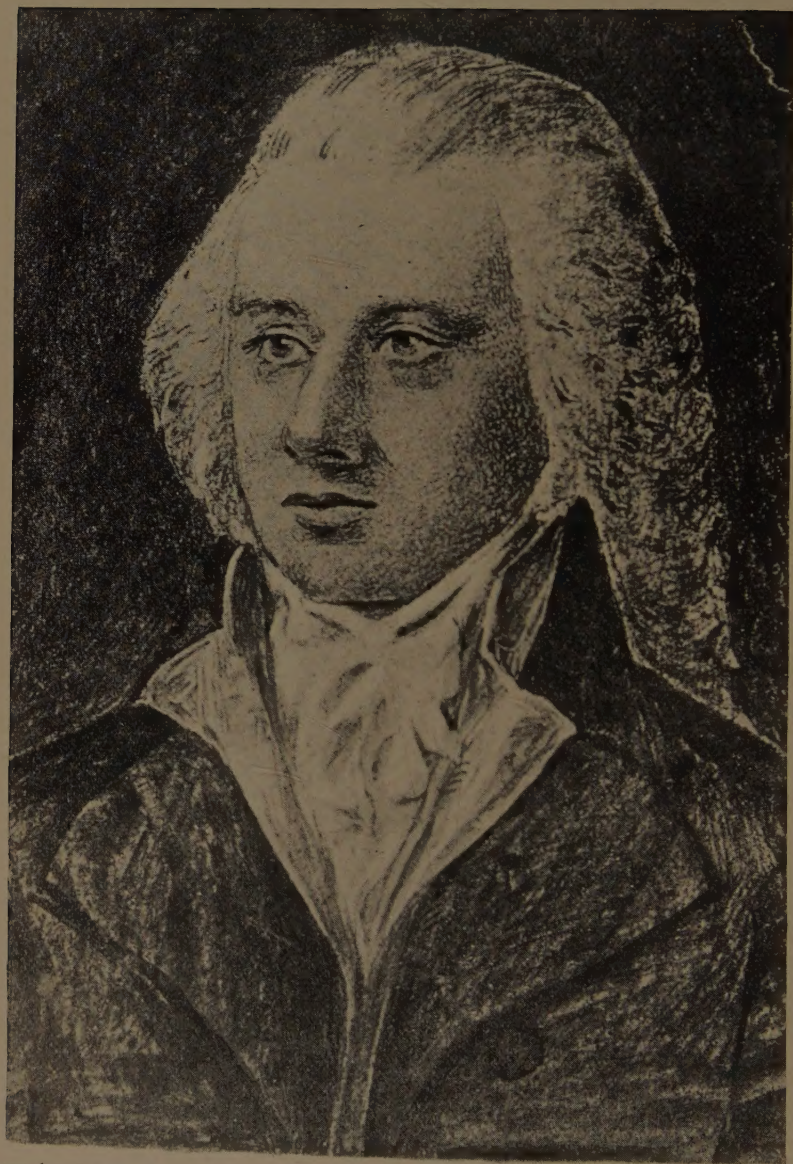
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asking only that you
treat them well and
see them safely home



John E. Harshbarger

JAMES RUMSEY

Pioneer in Steam Navigation



Reproduced from the portrait by Benjamin West, by the courtesy of Mr. Carroll L. Rumsey

James Rumsey

JAMES RUMSEY

Pioneer in Steam Navigation

BY

Ella May Turner

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Shepherdstown, West Virginia

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"West Virginia Verse of To-day"



"Conquer or fall was my motto."— JAMES RUMSEY.

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To My Mother

FOREWORD

* * *

When I was a child I was told two stories that were so intriguing that I never forgot them. One was of a man named James Rumsey, who "once upon a time" lived in Shepherdstown, which seemed almost at my very door, for on a clear Sunday I could hear the church bells ringing there. He had insisted on working on a queer boat that he said would go up the Potomac without anyone's rowing it. People called him crazy, and his wife scolded him for wasting his time and money. And the most thrilling part of all the story was the part about George Washington. He wrote a paper that told about the model—whatever that was—of Rumsey's boat, but he did not say a word about *steam*, for he did not want to give away the precious secret that Rumsey was going to build a steamboat. At last the boat was finished, and it went up the river without oars, just as Rumsey said it would, and everyone cheered him.

The other story was about "old John Fitch," who, having heard of the strange boat, sneaked into Shepherdstown, was caught peeping through the keyhole of the door of Rumsey's shop, and barely escaped a present of a brand new coat of tar and feathers.

The desire to know more of these two men has never left me. I have studied every available source of information about them and in doing so, I have reluctantly had to give up my belief in the story that Washington's certificate

referred to the model of a steamboat, though it was as dear to my heart as the famous story of the cherry tree, and I have had to accept a revised version of Fitch's visit to Shepherdstown. I have also revised my opinion of Fitch, whom I now regard as a person who, though he had most serious faults, among them his injustice to Rumsey, deserves commendation for his energy, his persistence, and his achievements in the development of the steamboat. I am firm in my belief, however, that Rumsey not only conceived the idea of steamboat navigation before Fitch but also preceded the latter in making experiments with his steamboat and that his public trials of his boat in 1787 were far more successful than any made by Fitch prior to 1790. I have reached my conclusions after careful research carried on for a number of years. Whenever possible, I have secured information from the original manuscripts of both Rumsey and Fitch.

In quoting material I have followed the spelling and punctuation of the originals as closely as possible. There is considerable variation in the spelling of Rumsey's letters, as he was not consistent in his spelling, and at times had some one write his letters for him. *Superior* letters, which occur frequently in the writings of Rumsey, Fitch, and others, have been brought down to the line.

As practically nothing is known of Rumsey's life before 1784, I spent a great deal of time in following the career of one James Rumsey who was at Fort Chartres prior to the Revolutionary War, and who was associated in business with William Murray and with Baynton and Wharton, but have been unable to identify him as the inventor.

I regret that I have been compelled to discuss the controversy between Rumsey and Fitch, but it would be im-

possible to write a sketch of the life of either without presentation of this subject.

The age of steam inaugurated by Rumsey and Fitch seems to be passing. "The old order changeth." It is time that old prejudices be laid aside—time for Fitch's admirers to quit calling Rumsey *a would-be-inventor*, time for Rumsey's adherents to quit calling Fitch *an inventive steam pirate*. Let us give each of the three Americans who had the largest part in giving the steamboat to the world due credit for his achievement—Rumsey for his experiments that directed attention to the practicability of steam navigation, Fitch for the practical principles of his boat, and Fulton for making the steamboat a commercial success.

I wish to thank for their coöperation Dr. Herbert Putman, the librarian, and Dr. J. Franklin Jameson, the chief of the manuscripts division of the Library of Congress, and his assistants, Dr. T. P. Martin and Dr. C. W. Garrison; Mr. H. M. Cashmore, city librarian of the Birmingham (England) Public Libraries; Mr. H. W. Dickinson, keeper of the South Kensington Science Museum; Mr. Bunford Samuel, librarian of the Ridgway Branch Library; Mr. Alfred Rigling, librarian of the Franklin Institute; Mr. L. E. Hansor, librarian of the American Philosophical Society; Mr. Charles Fickus, acting librarian of the Maryland Historical Society; Mr. Thomas Lynch Montgomery, librarian of the Pennsylvania Historical Society; Miss Georgia L. Osborne, secretary of the Illinois Historical Society; and the State librarians of Maryland, Virginia, Kentucky, Pennsylvania, and West Virginia. I am also greatly indebted to Mr. G. L. Nicholson and Mr. Arthur Sahli of the Chesapeake and Ohio Canal Company, Washington, D. C.; Mr. Arthur Burnett of Cadiz, Ken-

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I am deeply grateful to Professor Clark S. Northup of Cornell University, and President W. H. S. White of Shepherd College for reading my manuscript; to Dr. Louis Knott Koontz of the University of California at Los Angeles, and Mr. Warren B. Horner of Shepherd College for assistance in reading proofs, and to Professor Montague Modder of West Virginia University for the illustration that appears on the cover of this book. I would express appreciation of various kinds of assistance rendered by Mr. A. H. Westwood, assay master, Birmingham, England; Dr. St. George L. Sioussat of the University of Pennsylvania; Mr. Robert Schneider of Yale University; Dr. I. O. Ash of Shepherd College; Mr. Otto Rothert, secretary of the Filson Club of Kentucky; Dr. Roy Bird Cook and Mr. Boyd B. Stutler of Charleston, West Virginia; Mr. O. M. Ruark of Baltimore; Mrs. Robert Crenshaw of Cadiz, Kentucky; Mr. Carroll L. Rumsey of Philadelphia, and Mr. Herbert Rumsey of Dundas, New South Wales.

ELLA MAY TURNER.

Shepherdstown, West Virginia

May 15, 1930

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Chapter I

ANCESTRY AND LIFE PRIOR TO 1784

JAMES RUMSEY

Chapter I

ANCESTRY AND LIFE PRIOR TO 1784

James Rumsey was born at Bohemia Manor, Cecil County, Maryland, in March, 1743. He was a descendant of the Welsh branch of the Rumsey family.¹ The immediate progenitor of the Maryland Rumseys was Colonel John Rumsey of the English Army, a very brave officer who distinguished himself in Portugal under Cromwell's standard, and who later became implicated in the Rye House Plot. For his part in this conspiracy he was sent to St. Nicholas Isle near Plymouth for the term of his natural life. There is a family tradition that two of his sons "were taken from him after his testimony in that famous conspiracy." The proclamation for his arrest was issued by King Charles II on June 23, 1683, but he was not sentenced to banishment until 1686.

The best authenticated records state that his son, Charles Rumsey, came to America in 1665 with a kinsman and settled in South Carolina and that they lived there until 1676, when they went to New York, and later to Philadelphia. Charles Rumsey, some time prior to 1678, settled at the head of Bohemia River in Cecil County,

¹ Information concerning the Rumsey family was secured from wills of Cecil County, Maryland, Johnson's, *The History of Cecil County, Maryland*, pp. 508-9, and Mr. Herbert Rumsey of Dundas, New South Wales.

Maryland. In 1710 he presented a petition to the court "shewing that he was a Liver at the head of Bohemia River, and that he had a wife and several small children to maintain which to him were very chargeable and continual passengers coming to his house, travellers from this province for Pennsylvania and from Pennsylvania to this province, and to whom he in modesty gives entertainment, and lodgings, victuals, etc., without pay, which in time may amount to considerable sums of money;" therefore he prayed to be licensed to keep an ordinary.²

Charles Rumsey probably died in 1717, as his will disposing of a large estate was probated in that year. He was survived by his wife Catherine and by a large family of children, one of whom was Edward Rumsey to whom he willed his farm "Adventure" containing about 160 acres. Edward Rumsey, who married a Miss Douglas of Scotch descent, died in 1770, leaving three daughters, Susanna, Mary, and Terissa, and one son, Edward, who married Anna Cowman. At least five children were born to this union: James, the inventor, Charles, Edward, Mary, who became the wife of Charles Morrow, and a daughter who married Joseph Barnes. It seems likely that Edward Rumsey married a second time, since James Rumsey in a letter written while he was in England, expressed a wish that his father might make enough at his mill to support the children then at home.³ James Rumsey is said to have mar-

² Johnson, *The History of Cecil County*, p. 242.

³ August 4, 1789, *McMechen vs. Rumsey Papers*. The documents filed in the suit of Dr. James McMechen against Edward Rumsey, executor of James Rumsey's estate, and deposited by order of the Circuit Court of Augusta County, in the Virginia State Library. The most important of these documents are published in *William and Mary Quarterly*, Vol. XXIV, Nos. 3 and 4, and Vol. XXV, No. 1. Those quoted in this book are used with the permission of Doctor Henry R. McIlwaine, State Librarian.

ried Mary Morrow, a sister of Charles and John Morrow. If this be true, then Rumsey's daughter Susan was the child of a former marriage, for in a letter⁴ written to John Morrow in 1816 she addresses him as "friend of my youth" and sends her regards to his "lady." She also refers to his brother Charles as "Uncle Morrow." Though James Rumsey was the father of two other children, James and Clarissa, in a letter to his brother-in-law, Charles Morrow, he refers to Susan as "my child." Charles Rumsey married Betsey Maple of Sleepy Creek and went to Kentucky to live. Edward Rumsey, who was a doctor, lived in Shepherdstown for some years and later went to Lexington, Virginia, where he practiced medicine and also had a store, his partner having been Leonard Robinson.⁵ He later moved to Christian County, Kentucky, where he spent the remainder of his life.⁶

Information about the first forty years of James Rumsey's life is very meagre. Various writers tell us that his father, being a farmer of limited means, was able to give his children the advantages of only a very elementary education, that, notwithstanding this handicap, James Rumsey acquired a considerable store of useful information, especially concerning the physical sciences, and that he was a born mechanic and a skilled blacksmith.

His letters, in spite of his poor spelling and occasional lapses in grammar, show that he had considerable scientific knowledge and that he was a keen observer of men and affairs. They also give indications of his having been a man

⁴ See Appendix D.

⁵ *Boteler Manuscripts*, owned by Miss Helen B. Pendleton, Shepherdstown, W. Va.

⁶ See Rothert *History of Muhlenburg County*, (Ky.), pp. 81-83, and letter of Ferdinando Fairfax, Appendix D.

of admirable traits of character—honest, industrious, persevering, and thoroughly devoted to his family and his friends.

In the face of great discouragement, he never lost hope or his faith in the ultimate success of his understanding, and he had that priceless possession, a keen sense of humor.

His portrait,⁷ painted by his friend, the celebrated Benjamin West, shows him to have been a man attractive in personal appearance, a thinker and a dreamer. There was something about him—his charm, his genius, his faith in his undertaking—no one knows just what it was—that won him friends wherever he went—friends among the great men on two continents who gave him their respect, their friendship, and their confidence.

Major Henry Bedinger, a veteran of the Revolution, who survived the inventor over fifty years, said that Rumsey saw service during the Revolutionary War, and though there seem to be no records to prove his statement, it has never been questioned.⁸

It is not known when the Rumsey family left Cecil County, Maryland, nor is it known how many years of James Rumsey's life were spent in Shepherdstown.

Rumsey lived for a time in Baltimore, where he owned some property. This he sold a short time before we hear of him at Sleepy Creek where he bought some land in 1782, and where he formed a partnership with George Michael Bedinger in the milling business. Danske Dandridge says, "A most unsatisfactory partner, Bedinger found the dreamy, absent-minded inventor, so much so, indeed, that Michael soon became disgusted with the whole concern,

⁷ See frontispiece.

⁸ Norris, *History of the Lower Shenandoah Valley*, p. 398.



Millstone from Rumsey's Mill at Sleepy Creek

threw up the partnership, and, in 1784, went off to Kentucky to continue his career as a surveyor."⁹ It was, no doubt, during this partnership, that Rumsey confided his plans to make a boat run by the force of steam. A buhrstone of Rumsey's mill may be seen to-day in the park at Berkeley Springs.

It is said that, in 1783, Rumsey was engaged in the mercantile business at Bath, now Berkeley Springs. An old account book¹⁰ shows that he bought calf skins of William Brown of Shepherdstown in 1783 and 1784 and that he sold pine boards to Brown in November, 1783 and April, 1784. He also built in Bath a number of houses. Tradition says that he erected the first bath house at the famous springs.

In 1784, he and Robert Throgmorton were conducting a commodious boarding house "at the sign of the Liberty Pole and Flag" for the "better accomodation of visitors" to that gay and worldly resort that was a veritable thorn in the flesh to all religiously inclined persons, among them the good bishop, Francis Asbury, who wrote of it as if it were Sodom and Gomorrah in miniature. Fate decreed, however, that Rumsey was to achieve fame, though not as an inn-keeper.

⁹ *George Michael Bedinger, a Kentucky Pioneer*, pp 85-86.

¹⁰ Owned by Ella M. Turner, Shepherdstown, W. Va.

Chapter II
THE MECHANICAL BOAT

Chapter II

THE MECHANICAL BOAT

While Rumsey lived in Bath, he did not devote his entire attention to carrying on a mill, superintending the erection of buildings, and conducting a boarding house for the visitors who journeyed to the Warm Springs in search of health; or, as was more frequently the case, diversion and pleasure. His active brain was at work trying to solve the perplexing yet fascinating problems of the improvement of facilities for navigation. He was studying a question that he discussed with only a few intimate friends—the practicability of steam navigation—and also working out the principles of a mechanical boat designed to go against the current of rivers.

In the Journal of the House of Delegates of the Virginia Assembly, June 28, 1784, we read:

Whereas, it has been represented to the Assembly by James Rumsey and James McMechen that they have discovered the art of constructing a boat of the burthen of ten tons, which shall sail or be propelled by the influence of certain mechanical powers thereto applied, the distance of between twenty-five and forty miles per day, against the current of a fresh water river, notwithstanding the velocity of the water, with the said burden of ten tons on board to be wrought at no greater expense than that of three hands. This Assembly being desirous of encouraging every effort of genius and industry which may tend to public good Resolved, That upon

the said James Rumsey and James McMechen perfecting such a boat as above described this Assembly will grant them or their heirs a sum adequate to the importance of the discovery.

Ordered, That Mr. Alexander White do carry the resolution to the Senate and desire their concurrence.

Rumsey exhibited a model of a mechanical boat to George Washington, who stopped at Bath, while on his way to visit his landed property west of the Appalachian Mountains.

In his diary Washington wrote on September 6, 1784:

Remained at Bath all day and was showed the Model of a boat constructed by the ingenious Mr. Rumsey, for ascending rapid currents by mechanism; the principles of this were not only shown, and fully explained to me, but to my very great satisfaction, exhibited in practice in private under the injunction of Secresy, untill he saw the effect of an application he was about to Make to the Assembly of this State, for a reward.

The Model, and its operation upon the water, which had been made to run pretty swift, not only convinced me of what I before thought to be next to, if not quite impracticable, but that it might be turned to the greatest possible utility in inland Navigation; and in rapid currents; that are shallow — and what adds vastly to the discovery, is the simplicity of its works; as they may be made by a common boat builder or carpenter, and kept in order as easy as a plow, or any common impliment of husbandry on a farm.

Having obtained a Plan of this Town (Bath) and ascertained the situation of my lots therein, which I examined; it appears that the disposition of a dwelling House, Kitchen and Stable cannot be more advantageously placed than they are marked in the copy I have taken from the plan of the Town; to which I refer for recollection of my design; and Mr. Rumsey being willing to undertake those Buildings, I have agreed with him to have them finished by the 10th of next July. The dwelling House is to be 36 feet by 24, with a

gallery of 7 feet on each side of the House, the whole fronts, —under the House is to be a Cellar half the size of it, walled with Stone, and the whole underpinned, on the first floor are to be 3 rooms; one of them 24 by 20 feet, with a chimney at the end (middle thereof) the other two to be 12 by 16 feet with corner chimneys. —on the upper Floor there are to be two Rooms of equal sizes, with fire places; the Staircase to go up in the Gallery. —galleries above also. The Kitchen and Stable are to be of the same size — 18 by 22; the first with a stone Chimney and good floor above. —the Stable is to be sunk in the ground so as that the floor above on the North, or side next the dwelling House, shall be level with the Yard. —to have a partition therein, —the West part of which to be for a Carriage, Harness, and Saddles. —The East for Hay or Grain. . . .¹

The next day Washington gave the following certificate to Rumsey:

I have seen the model of Mr. Rumsey's boats, constructed to work against the stream; examined the powers upon which it acts; been eye-witness to an actual experiment in running water of some rapidity, and give it as my opinion (although I had little faith before) that he has discovered the art of working boats by mechanism and small manual assistance against rapid currents; that the discovery is of vast importance may be of the greatest usefulness in our inland navigation, and if it succeeds (of which I have no doubt) that the value of it is greatly enhanced by the simplicity of the works which, when seen and explained, may be executed by the most common mechanic.

Given under my hand at the town of Bath, County of Berkeley, in the State of Virginia, this 7th day of September, 1784.

GEORGE WASHINGTON.

John Fitch made an amusing comment concerning this certificate:

The Certificate which he gave to Mr. Rumsey Respect-

¹ Fitzpatrick, *George Washington Diaries*, Vol. II, pp. 282-284.

ing his Pole Boat, and permitting him to publish it so freely was one of the most imprudent acts of his life.²

Rumsey's plan was so novel that when he sought to interest prominent men in his proposed boat he had only ridicule to reward him for his ingenuity. It was, therefore, a propitious day for him when his invention won the approval of Washington, and thus became assured of receiving the consideration that it merited.

The Virginia Argus of October 9, 1784, which published this certificate, thus, comments:

By the following certificate it will appear, that our beloved General in his retreat from the glories of the Field, still continues to encourage and pay attention to such undertakings as are pregnant with great utility to his country. Mr. James Rumsey (late of Baltimore) having been happy in a mechanical discovery, could not, for some time impress his fellow Citizens with an idea of its practicability, but by a laudable Perseverance, he hath at length obtained not only the approbation of General Washington, but of General Wood, the Honorable Mr. Randolph of the Council, Dr. Craig, and several other members of the Legislature of the State and other gentlemen of Character and Distinction; so that he may now expect a reward from his grateful country, that may, in some measure, compensate him for his Ingenuity.

A number of writers have used Washington's certificate as evidence that as early as 1784, Rumsey had completed a model of a steamboat. In doing so they have either overlooked or forgotten Washington's own words, "At the time he exhibited his model and obtained my certificate I had no reason to believe that the use of steam was contemplated by him." It was a model of a *streamboat*, and not that of a *steamboat*, as the inventor himself says:

² *Fitch Papers*, "Steamboat History," p. 10, Ridgway Library.

In the month of September, 1784, I exhibited a model of a boat before his excellency General Washington, at Bath, Berkeley county, calculated for stemming the current of rapid rivers only, constructed on principles very different from my present one . . . At the time of that exhibition it was fully my intention to complete this boat, yet in the course of that fall and winter, I made such progress in the improvement of some steam engines, which I had long conceived, would become of the greatest consequence in navigation that I postponed it till experiments should determine whether the steam engine could be reduced to such simplicity and cheapness as to make them of public benefit.³

The following autumn Rumsey went to Richmond, where, on November the eighth, he presented a petition to the General Assembly for "the sole and exclusive right of constructing and navigating certain boats for a limited time." The committee to whom the matter was referred, having reported favorably, an act with the following provisions was passed:

I. WHEREAS it is represented to this present General Assembly, that James Rumsey hath invented boats which are constructed upon a model that will greatly facilitate navigation against the current of rapid rivers, whereby great advantages may be derived to the citizens of this state; and whereas the said James Rumsey hath made application for the sole and exclusive right and privilege of constructing and navigating such boats for the term of ten years as a recompence for this invention:

II. BE IT THEREFORE ENACTED, That the said James Rumsey, his heirs, executors, and assigns, shall have the sole and exclusive right and privilege of constructing and navigating boats upon his model, in each and every river, creek, bay, inlet, or harbour within this commonwealth, for and during the said term of ten years, to be computed from the first day of January, one thousand seven hundred and eighty-five. If

³ *A Plan Wherein the Power of Steam is Fully Shewn*, p. 3.

any person, other than the said James Rumsey, his heirs, executors, or assigns, shall during the term aforesaid, either directly or indirectly, construct, navigate, employ, or use, any boat or boats upon the model of that invented by the said James Rumsey, or upon the model of any future improvement which the said Rumsey may make thereon, he or they, for every boat so constructed, navigated, employed or used, shall forfeit and pay for every such offence the sum of five hundred pounds, to be recovered with costs, by action of debt, to be founded on this act, in any court of record; one half to the use of the party who will sue for the same, and the other half to the use of the said James Rumsey. PROVIDED ALWAYS, That the exclusive right and privilege hereby granted, may at any time during the said term of ten years, be abolished by the Legislature, upon paying to the said James Rumsey, his heirs, executors, or assigns, the sum of ten thousand pounds current money of Virginia.⁴

Rumsey presented, on November 11, 1784, a petition to the Maryland General Assembly, wherein he set forth that he had invented a plan for navigating boats against the current of rapid rivers at small expense. An act granting him the same privileges in Maryland as those secured in Virginia was passed on January 22, 1785.

In the Journal of the House of Representatives of South Carolina is the following record:

It being represented to this House that James Rumsey a citizen of America, hath invented a machine for working boats against the stream,

Resolved, That a committee be appointed to write to the said James Rumsey, and to inform him that the House will give him the most ample encouragement to this invention, and reward him suitably to its importance, provided he shall in it ensure the public advantages which it has promised.⁵

⁴ Hening, *Statutes at Large*, Vol. XI, p. 502.

⁵ *National Intelligencer*, Nov. 16, 1816.

This committee wrote to Rumsey:

Charleston, March 1, 1785

Sir — Inclosed we send you a resolution of the House of Representatives respecting your invention of a boat to work against the current which, if reduced to practice in the extent which the public have been taught to expect, will be of great advantage to this state. If, therefore, you are clear in your principles, and can safely depend on carrying your desirable invention into effect, you will find most ample encouragement from this state, and you had better come here as soon as you possibly can. We are appointed a committee to give you this information.

We are your most obedient Servants

HENRY PENDLETON

CH. COTESWORTH PINCKNEY⁶

On November 10, 1784, Rumsey formed a partnership with Dr. James McMechen, the purpose of which was to obtain, at their joint expense, premiums or exclusive rights for the former's invention of constructing boats "to sail against rapid currents." The inventor was to receive three-fourths of the premiums or profits, and McMechen, the remainder.⁷

Washington wrote to Hugh Williamson, March 15, 1785:

. . . Mr. McMechen's explanation of the movements of Rumsey's newly invented boat is consonant to my ideas, and warranted by the principles upon which it acts. The small manual assistance, to which I alluded, was to be applied in still water and to the steerage. The counteraction being proportioned to the action, it must ascend a swift current faster than a gentle stream; and both, with more ease than it can move through dead water. But in the first there may be, and no doubt is, a point beyond which it cannot go

⁶ *National Intelligencer*, Nov. 16, 1816.

⁷ *McMechen vs. Rumsey Papers*.

without involving consequences, which may be found insurmountable. Further than this I am not at liberty to explain myself; but if a model, or thing in miniature, is a just representation of a greater object in practice, there is no doubt of the utility of the invention. A view of his model, with the explanation, removed the principal doubt I ever had in my mind of the practicability of propelling against a stream by the aid of mechanical power; but as he wanted to avail himself of my introduction of it to the public attention, I chose previously to see the actual performance of the model in a descending stream before I passed my certificate; and having done so, all my doubts were satisfied. . . .⁸

Early in 1785 Rumsey, being as usual in financial difficulty, received a rebuke from Washington for his attempt to settle a debt by sending him "the note of a shuffling player." In this letter Rumsey sought to restore himself to Washington's favor:

Bath March the 10th 1785

Dear Sir

Your favour of the 22d ultimo has just come to hand and it gives me much uneasiness that I Should, though unintentionally, have gave you So much trouble about Ryans note, as well as not Comeing up to my promis in the Repayment of the money you Lett Mr. Herbert have on my account, I am also hurt that from the present apearance of things you have Reason to think me a person not possessed of the Least honor or Delicacy to be Capable, as you have Very Justly Observed, of Sending you the note of a Shuffling player, for Shuffling he Certainly is, But your goodness Sir, is conspicuous in your Letter to me, as well as on all Other occations to give me Such Indulgences as you have proposed at a time when you have Reason to think I Do not Deserve it. But although I am Senceable that nothing I can offer as Excuse Should be Received as full Satisfaction as the money was not paid yet I trust that you may not think So hard of me when I give you a Detail of my proceedings after I had

⁸ Sparks, *Writings of Washington*, Vol. X, pp. 444-445.

the honor of Seeing you Last—I stayed at Richmond near two weeks after my buisness was Done Endeavouring to get Sum money of Ryan But To Little purpose Except Sufisiant to pay my Expences I then Toald him the Solemn Ingagement I was under to you for the payment of fifty pounds in a few weeks and as I thought It might tend to make him punktial I took the Liberty to have the note Drawn in your name But never Intended you Should See it much more to have So much trouble with it. When I was On my way home I met with a Mr. Klinehoof of alexandria knowing him to be a Safe hand, and thinking my acquaintance with Mr. Herbert, would Intitle me to ask him a Small favour, as I Conceived it, I Enclosed the note in a Letter to Him and beged him in the most Serious and pressing terms to Send the note to his freind in Richmond for payment against the Day it was Due and if the money was obtained to give it to you Immediately But by no means to present the note to you that it was only Drew in your name to urge the other to payment. My hearing no more of the matter for Sumtime gave me hopes that the money was Received by Mr. Herbert, abought the first of February I had an Opertunity of writeing to Mr. Herbert abought the matter and Sum other Buisness But to my great Surprize his answer Respecting the note was—“The note being Drawn In the Generals name I Delivered it to him,— This answer gave me great uneasyness Least it Should turn out as it Realy did. I had one chance that I thought good in Berkeley to get the money where it was Due me, But all my Indeavours proved Inafectual or I Should have immediately Come Down, I therefore waited the Event of Ryans note with great anxiety, your Letter Announced it and your Indulgence Exceeded my most Sanguine Expectations. I had an Opertunity to go to Richmond and pressed Ryan hard to pay the note had no answer but heard of his Sickness and his Since Removeing to Norfolk if you will be kind enough to Leave the note with Mr. Herbert when I come or Send to alexandria perhaps I may yet get in his favour to forward it to Ryan if not I can have it home—Respecting your houses Sir, they will Shorely be built agreeable to your Directions, and would have been had I not have heard from you at all as I had

Spoke to a man before I went to Richmond that kept two or three workmen to build me the kitchens and Stables of all the houses I had to build, my Stay was So Long that before I got home the Loggs were all hewed the Shingles got and are all on the Spott Ready for Raising. I hope Sir you will not Disapprove when I tell you of my proceedings Respecting your Big house, nor Construe it into a Desire of me to Revive our old agreement, But I have it under way the window Shutters Doors and Sash are all made and the most of the moaldings Every Inch of the Stuff is Sawed and I have agreed with a man to frame and Raise it against the first day of May, I Shall not call upon you nor Draw any Orders more for money nor Do I Desire that you Should lend me any Except you can Spare it with the greatest convenance, and I now give you my word that I Will not Distress myself to finish it if I find I cannot Do it without, I will Quit when I have it Inclosed which I Can Do with But Little more Expence, and it will then Be as Secure against the weather as if it Was Done.

Respecting my Boat, Georgia & South Carolina I have petitioned, North Carolina I have But have not heard what have they Done, Maryland I hear has gave me an Exclusive Right under a redemption by the Legeslature, Pennsylvania has Done the Same, New Jersey, threw it out of the house by a majority of four new York asembly was not Sitting which was the farthest that I made applycations to northward—I have made many neat and acurate experiments with my Boat, Since I saw you, and find far it Exceeds, my Expectations on the first Experiment, made Last fall I find She will go a greater proportion of the Velocity of the water in Rapid Current than Slow ones, the Reason is, the friction is nearly the Same in Boath Cases, it therefore takes a greater part of the force of a Small Current to overcome it, when a very Small proportion will Do it with Ease in Rapid water. I have Deduced a Rule from Experiment, By which I can tell what Quantity of [Paddle(?)] Board a head, to Each tun, the Boat Caryes, is nesasary, to go in with any proportion you think proper to the Stream that Comes Down, by which I find that the Resistance of water against Boat, Increases Exactly as the Squares of the Veloc-

ity of the Boat, against it, Nither can their be a general Rule to give the Resistance that Boats, of the Same Burthen and Velocity meet, with If their formes is Different for I find that Bad Shaped Boats, meet, with nearly three times the Resistance that good ones Do of the Same Burthen, a well Shaped Boat will move a head be her Burthen what It may, as fast as the Water Comes Down with three Square feet of Paddle Board ahead for Each tun weight taken Up, the Boats weight Included, the fourth part of that much paddle Board will move her up twice as fast as the Current Comes Down, it then follows that if a Boat and her Load weighing eight tun, with twenty four Square feet of paddle Board a head was to move up a River as fast as the Current came Down, that if Six tuns was taken out of Said Boat which would Leave But Little More than an Emty Boat that She would then go up the River with twice the Velocity that Current Came Down So much for the kind of Boat, the Modle of which you Saw . . .⁹

Rumsey's next letter to Washington contains the usual Rumseyan "hard luck story"—this time about Washington's houses at Bath.

Bath, June 24th 1785

Sir

I had the honor of receiving your favour of the 5th Inst. with the Inclosures and am happy to find that you Excuse my Imprudence Respecting Mr Ryans note. But the following account I fear will give you Sum Disapointment the number, of houses I Undertook was four yours included that was Large the Stuff for the hole was Sawed But from the Badness of the Road, ocationed by So much Rain the greatest part of it Lay at the mill—Untill the Beginning of April when unfortunately the Sawmill took fire in the night and was not Discovered untill next Day By which time the mill was Intirely Consumed with a Great part of the plank and Scantling this Stroke put it Intirely out of my power to proceed with your Large house and not withstanding my

⁹ *George Washington Papers*, Library of Congress.

Outmost Exertions at Other mills to get the stuff nesasary
 It has put me So far back that I shall Be under the Disa-
 greeable Nesesity of Disapointing at Least One of the three
 Gentlemen that I have Obligated with for the present Sea-
 son But I have prepared him a house Should he Insist on
 being furnished with one, I should have gave you this infor-
 mation much Sooner but I saw your brother Col. John
 Washington at April Court and he said he would Inform you
 of It as he went home perhaps he did not See you or multi-
 plisity of Business may have Caused it to have Sliped his
 memory. I have got my Boat nearly done the Machenery
 Excepted. Inclosed I send a Letter for you and the Directors
 of the Potomack Company and if you please be kind enough
 to Read it and have it Dilivered or Suppressed as you may
 think best I can only add that Should I have the honour of
 apointment I will Exert myself to the Outmost of my power
 to afect the Business. Your small houses are nearly done
 the Chimney Seller &c will be very Compleat, their will be
 sum money Coming to me and I am Sorry I am under the
 nesesity of Requesting the favour of you to answer the first
 Draft towards my share of the Potomack nagation I am
 Sir your Sincere friend and Very hbl. Servt.

JAMES RUMSEY¹⁰

We find that as late as February, 1787, Rumsey had not abandoned his plan to build "mechanical boats," as at that time he assigned to Charles Morrow for the sum of one thousand pounds "one Moiaty or full tenth part" of his exclusive right to "Construct and Navigate Mechanical Boats in the State of Virginia," or the one-fourth part of his "Exclusive Rights to Navigate the Potomack from Alexandria to its source."¹¹

Washington regarded Rumsey's invention of working boats against the stream by mechanical process principally,

¹⁰ *George Washington Papers*, Library of Congress.

¹¹ *Boteler Manuscripts*.

Know all men by these presents, that I James Rumsey of Brooke's
County and State of Virginia, for and in Consideration of One thousand pounds
current Money to me in hand paid by Capt^t Charles Morrow of the County
and State aforesaid, the Receipt whereof I do hereby Acknowledge, hath Bar-
gained sold and by these presents hath Bargained sell made Over and Conferred
To the aforesaid Charles Morrow his heirs Ex^{ts} Adm^{rs} and Assigns one
Tenth part of all my Exclusive Right to Construct and
Navigate Mechanical Boats in the State of Virginia
for the term of years as by Act of the Assembly of the State of Virginia
in the year 1784. will more fully appear
I do hereby agree by and with the said Charles Morrow
I should transfer the one fourth part of my Exclusive
Right to Navigate the Potomack River from Alexandria to its Source
To the said part of the State of Virginia as above Recited,
I do give notice thereof in two months from the Date hereof
To the said part of the State of Virginia as above Recited,
I do give notice thereof in two months from the Date hereof
I do hereby transfer the Exclusive Right of the Virginia Navigation
To the said Charles Morrow his heirs Ex^{ts} Adm^{rs} or Assigns, in
and to the said part of my Rights to ~~the said~~ title
And Interest in the Exclusive Rights to Navigate Potomack
River from Alexandria to its Source as granted to me by
The Assembly of Maryland and Virginia In testimony whereof
I have hereunto set my hand and seal this fourteenth Day
of February One thousand seven hundred & eighty seven
Signed Sealed and Delivered
In presence of } James Rumsey
Joseph Barnes }
Edward Rumsey }

Transfer to Charles Morrow of a Tenth Part of Rights to Construct
and Navigate Mechanical Boats

as not "only a fortunate invention for these states but as one of the circumstances which have been combined to render the present epoch favorable above all others for securing (if we are disposed to avail ourselves of them) a large portion of the produce of the western settlements and of the Fur and Peltry of the Lake, also."¹² In other words, he saw in this invention an effective means of carrying out one of his most cherished projects, the opening of navigation with the West "by means of an easy and short communication between the waters of the Ohio and the Potomac."¹³

¹² *George Washington Diaries*, Vol. II, pp. 327-328.

¹³ Ford, *Writings of Washington*, Vol. X, p. 375.

Chapter III

SUPERINTENDENT OF THE POTOMAC COMPANY

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SUPERINTENDENT OF THE POTOMAC COMPANY

From the time of his first employment as a surveyor, Washington had been intensely interested in the utilization of the Potomac River for transportation; and early in 1772, while a member of the Virginia House of Burgesses, he secured the passage of an act empowering Trustees to raise money by subscriptions and lottery for the purpose of extending the navigation of the Potomac from tidewater to Fort Cumberland. The attempt of Thomas Johnson at the same time to induce the Maryland Assembly to pass a similar act failed because of the opposition of Baltimore merchants. We find in Washington's diary that on November 12, 1774,¹ he went to George Town and on the twenty-sixth of January² of the following year, to Alexandria "to an intended meeting of Trustees for opening Potomack River," and that on both occasions "None met." After the beginning of the Revolutionary War practically no attention was paid by Washington to Potomac navigation until the Army had been disbanded. One of the objects of his western trip in the fall of 1784 "was to obtain information of the nearest and best communication between the Eastern

¹ Fitzpatrick, *George Washington Diaries*, Vol. II, p. 170.

² *Ibid.*, p. 183.

Waters; and to facilitate . . . the Inland Navigation of the Potomack."³ It was not until 1785, however, when a compact in the interest of Potomac improvement was ratified by the legislatures of Virginia and Maryland that his cherished plan began to have some prospect of being carried out. Subscription books were opened at Richmond, Alexandria, and Winchester in Virginia, and at Annapolis, Frederick, and Georgetown in Maryland.

On May the seventeenth, when the subscribers to the Potomac Navigation met at Alexandria they found that 403 shares had been subscribed, "which," wrote Washington, "being more than sufficient to constitute the Company under the Act, the Subscribers proceeded to the choice of a President and 4 directors; the first of which fell upon me, the votes of the other four fell upon Governors Johnson and Lee of Maryland, and Colonels Fitzgerald and Gilpin of this State."⁴ Among the list of subscribers is the name of James Rumsey, who subscribed for one share.

On the thirty-first of May, the directors met and took the oath of office, and William Hartshorne was appointed treasurer.

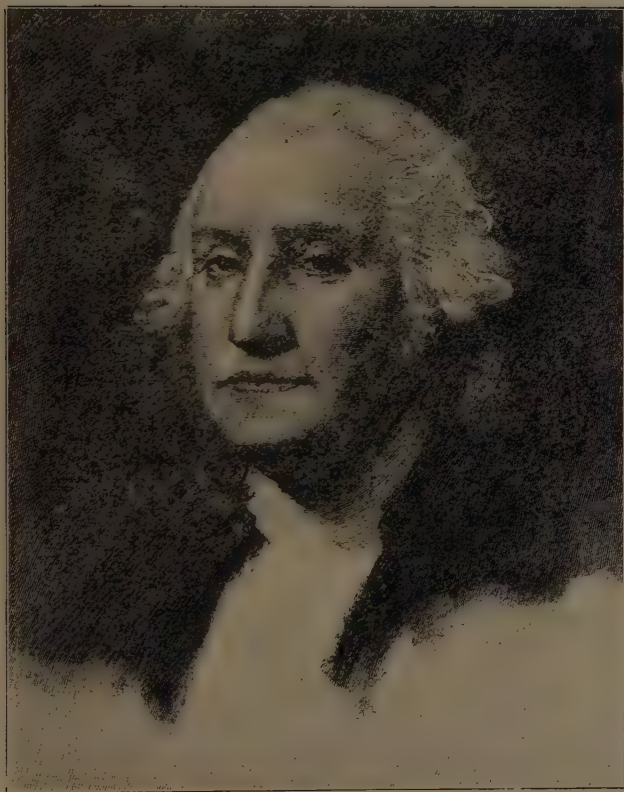
At this meeting the following resolution was passed:

That it is the opinion of this Board that it is most eligible to employ two sets of hands, one of them in opening and improving the navigation from Payne's Falls and the other from the upper part of Shenandoah Falls to the highest place practicable on the North Branch. That each set of hands consist of fifty men to be under the general direction of one skilful person who shall have a proper assistant, as well as three overseers with each party.⁵

³ Fitzpatrick, *George Washington Diaries*, Vol. II, p. 280.

⁴ *Ibid.*, p. 376-377.

⁵ *Minutes of the Meetings of the Board of Directors of the Potomac Company*. Owned by the Chesapeake and Ohio Canal Company.



From a portrait by Gilbert Stuart.

George Washington, the First President of the
Potomac Company

It was ordered that a letter be written to Captain Abraham Shepherd requesting him to contract for the building of two strong boats that were to be thirty feet long, eight feet wide, and no less than two feet deep, and also that Colonel Josias Clapham contract for two other light boats.

It was further ordered that advertisements be inserted in Philadelphia, Baltimore, and Alexandria for a superintendent, two assistants, and overseers, and for not over one hundred good hands.

Washington wrote in his diary:

July [Friday], 1st. Went to Alexandria to a meeting of the Board of Directors, who by Advertisement were to attend this day for the purpose of agreeing with a Manager and two assistants to conduct the Undertaking of the Potomack Navigation; but no person applying with proper credentials the Board gave the applicants until Thursday the 14th to provide these and for others to offer.

On the second of July, Washington wrote to Rumsey:

Mr. James Rumsey
Sir,

Early in the last month I wrote you an answer to your letter of March 10th. . . .

In that letter I enclosed you a hand Bill of the proceedings of the Board of Directors containing an advertisement of their want of a Manager, two assistants, some Overseers and a number of Labourers; requesting that it might be exposed at some public place in the county where you live:—those of the first two descriptions were required to meet the Directors at Alexandria on yesterday;—but whether the notice was too short—or that characters who are competent to the business are difficult to be met with, I shall not take it upon me to determine;—but none appearing with such testimonials of their abilities, industry and integrity, as the Board conceived indispensably necessary for their justification for this business.

As I have imbibed a very favorable opinion of your mechanical abilities, and have had no reason to distrust your fitness in other respects,—I took the liberty of mentioning your name to the Directors, & I dare say if you are disposed to offer your services, they would be attended to under favourable circumstances:—but as this is business of great magnitude, good or ill impressions in the commencement of it will have a powerful effect on the minds of the adventurers & on public opinion; and as the Directors are no more than Trustees of the Company & of consequence must proceed circumspectly:—Candour obliges me to observe to you, as I believe some of those who will meet for the purpose of appointing a Manager & assistants, have only a Superficial acquaintance with you, that it might be well, if you incline to offer your services, to bring Some letters or other credentials of your industry &c—& if these were to come from members of the company they would have the greater weight.

Colo. Gilpin (one of the Directors, & who is the bearer of this letter) is on his way to the Falls of Seneca & Shenandoah; & it would be fortunate if he should meet with you on this trip.

I am &c

G. WASHINGTON.⁶

As canal-making was a unique enterprise in America, no one with practical experience was found among the applicants when the Board met on the fourteenth. The most promising among the candidates was James Rumsey, who presented among his credentials a letter of recommendation from General Horatio Gates.⁷ As Rumsey was considered the “most skilled mechanic in the two States,” he was employed to undertake the great task. His salary was to be two hundred pounds, Virginia currency, a year, inclusive of all expenses he might incur. Richardson Stewart was appointed assistant manager at a salary of one hundred and

⁶ *Washington Letter Book*, Library of Congress.

⁷ See letter of Rumsey to Gates, July, 1786, New York Public Library.

twenty-five pounds, Virginia currency. The selection of the second assistant was left to the newly appointed superintendent.

Washington's diary contains a brief account of the meeting:

Thursday, 14th. Went through my Harvest field at Muddy hole to Alexandria to a Meeting of the Directors of the Potomack Company. Agreed with Mr. James Rumsey to undertake the Management of our Works, and a Mr. Stuart from Baltimore as an Assistant. Gave them directions, passed some accts., paid my quota of the demand for these purposes to Mr. Hartshorne, the Treasurer. Made Mr. Dalby a visit, and came home in the evening.⁸

The employees were to receive their wages every two weeks, and each man was to have the following ration: "1 lb. of salt pork or 1½ lb. salt beef or 1½ lb. fresh beef or mutton, 1½ lb. Flour or Bread and 3 gills rum per day."

From the time of his appointment until his resignation, Rumsey seems to have had difficulty in securing the necessary supplies for carrying on the work. Only four days after the meeting at Georgetown, he wrote to William Hartshorne, treasurer of the company:⁹

Shepherdstown July 18 1785

Sir,

I find much Difficulty in purchasing the necessary articles for the Company's work. On account of the Distance they have to Send for their money I could not get the Iron until I gave my word that I would forward their Bill by Express or otherwise to you. So as to have the money in a

⁸ *George Washington Diaries*, Vol. II, p. 391.

⁹ All letters from Rumsey to Hartshorne quoted in this volume are in the possession of the Chesapeake and Ohio Canal Company, Washington, D. C., and are used by permission of the superintendent, Mr. G. L. Nicholson.

few Days Ready for them. for if I fail in my promises of payment I shall shurely be able to purchase nothing that I want. Inclosed you have Henderson & Company's Bill for the iron the amount in Maryland money.

I leave this with Capt. Shepherd to forward by a Safe hand. I am Sir, your freind and hbl. Servt.

JAMES RUMSEY

Mr. Wm. Hartshorne

P. S. Pleas to Informe the Board that the Boats at Coln. Clapham's are in a very Backward Situation. I think they will not be Done in time, I am etc.

J. R.

After the meeting, the president and a number of stockholders started on a four-day tour, the object of which was to inspect the course of the river from Georgetown to Harpers Ferry and ascertain where and to what extent it was necessary to construct canals and remove obstructions in the river.

General Washington, who left the party at Seneca wrote in his diary:

Wednesday August 5th. After Breakfast, and after directing Mr. Rumsey when he had marked the way and set the labourers at Work, to meet us at Harper's Ferry, on the Evening of the Morrow (at the conflux of the Shannondoah with the Potomack) myself and the Directors set out for the same place by way of Frederick Town (Maryland). Dined at a Dutchman's 2 Miles above the Mo[uth] of the Monocasy, and reached Frederick Town about 5 o'clock. Drank tea, and lodged at Governor Johnson's. In the evening the Bells rang and Guns were fired; and a Committee waited upon me by order of the Gentlemen of the Town to request, that I wd. stay next day and partake of a public dinner, which the Town were desirous of giving me. But as arrangements had been made, and the time for examination of Shannondoah Falls previous to the day fixed for receiving laborers into pay, was short, I found it most expedient to decline the offer and the honor. . . .

Sunday, 7th. About Sunrising, the Directors and myself rid up to Keeptrieste, where Canoes were provided, in which we crossed to the Maryland side of the river and examined a Gut, or swash, through which it is supposed the Navigation must be conducted. This Swash is shallow at the entrance, but having sufficient fall, may easily (by removing some of the rocks) admit any quantity of Water required. From the entrance to the foot, may be about 300 yards in a semi-circular direction with many loose, and some fixed rocks to remove. Having examined this passage, I returned to the head of the fall, and in one of the Canoes with two skilful hands descended them with the common currt. in its natural bed, which I found greatly incommoded with rocks, shallows and a crooked channel, which left no doubt of the propriety of preferring a passage through the swash.

From the foot of the Swash the Water is pretty good for 3 or 400 yards further, when there is another fall of it, or rapid with an uneven bottom which occasions a considerable ripple at Top; but as there is sufficient depth, and the channel middling straight, the difficulty here in descending is not great, but to return without the aids spoke of at the Seneca falls may be labourious. From hence the Water is good to the head of the Island just above the ferry, by which it is shoal on the Virginia side with some rocks, and tho' deepest on the Maryland side, is worse on acct. of the Rocks which are more numerous. The distance from the head of the Fall to the Ferry may be about a Mile and half.

Here we breakfasted; after which we set out to explore the Falls below; and having but one Canoe, Colo. Gilpin, Mr. Rumsey (who joined us according to appointment last Night) and myself, embarked in it, with intention to pass thro' what is called the Spout (less than half a Mile below the ferry). But when we came to it, the Company on the Shore, on acct. of the smallness, and low sides of the Vessel, dissuaded us from the attempt, least the roughness of the Water, occasioned by the Rocky bottom, should fill and involve us in danger. To avoid the danger therefore we passed through a narrow channel on the left, near the Maryland shore and continued in the Canoe to the lower end of Pain's falls distant, according to estimation, 3 Miles

At the foot of these falls the Directors and myself (Govr. Lee having joined us the Evening before) held a meeting. At which it was determined, as we conceived the Navigation could be made through these (commonly called the Shanandoah) Falls without the aid of Locks, and by opening them would give eclat to the undertaking and great ease to the upper Inhabitants, as Water transportation would be immediately had to the Great Falls from Fort Cumberland, to employ the upper hands in this work instead of removing the obstructions above and gave Mr. Rumsey directions to do so accordingly with general instructions for his Governmt. . . .

Tuesday, 9th. Having provided a light and convenient Boat, hired two hands to work her, and laid in some Stores, Colonels Fitzgerald and Gilpin, and myself embarked in it, leaving Mr. Rumsey to engage more h[an]ds and to set those he had to work about 6 O'clock P. M. . . .

Wednesday 10th. . . . After Breakfasting, and spending some time with the labourers at their different works, of blowing, removing stone, getting Coal, wood, etc., we left the Seneca Falls about 2 O'clock P. M. and crossing the River about half a Mile below them and a little above Captn. Trammels we got into the great Road from Leesburgh to Alexandria, and about half after Nine O'clock in the Evening I reached home after an absence from it of 10 days.¹⁰

At the meeting held at Shenandoah Falls, the following letter was written to James Rumsey, transcribed in the minutes, and signed in duplicate by General Washington:

Sir,— As you have attended the President and directors in their view and examination of the river from the upper part of Seneca Falls to the Great Falls and from the flat water above to the flat water below the Shenandoah Falls you are possessed not only of their opinion of the course in general to be improved and their idea of the manner of effecting the work but also of their sentiment on many particular spots . . . The President and directors have no doubt, could they personally attend the work in its progress and see

¹⁰ *George Washington Diaries*, Vol. II, pp. 397-404.

the river and those places in its different situations, they might in many instances depart from their present opinions. — The nature of the work and our situations therefore make it necessary to leave it in your discretion to vary from what you may have conceived our opinion to be as to the track or manner of executing the work. And we do it the more cheerfully as you seem to be equally impressed as ourselves with the importance of a straight navigation and the advantages of avoiding as far as well may be, cross currents. The opportunity you will have to watch the water at different heights and your industry in examining more minutely the different obstructions will enable you to exercise the discretionary power left with you to your credit and satisfaction. You are already apprised of our change of resolution as to the place of working the upper party and the reasons which induced the change, and as affecting the navigation through the Shenandoah and Seneca Falls will be immediately advantageous to a great extent of country you are not to consider yourself restricted to the number of fifty hands for each party, but you are to employ as many as you have an opportunity to engage and you can work to advantage, so that the work may be expedited; but you must immediately on exceeding one hundred in the whole give information to the President lest any disappointment should happen in the ready payment of the company's debts, which by all means is to be avoided.

For the President and Directors
(signed) G. WASHINGTON.

Upon the receipt of Washington's letter, Rumsey directed his attention to tracing out the line or channel of the river to be cleared and improved. He then divided it into parts, to each of which he assigned a specified number of hands under the charge of an overseer.

At the annual meeting of the board, held in Georgetown on the first day of August, 1785, it was ordered that the treasurer, William Hartshorne, forthwith advance to Rumsey the sum of fifty pounds Virginia currency, as a con-

tingent fund, to be expended in small sums for the use of the company, and that at stated periods the superintendent render an account accompanied by vouchers.¹¹

The main subject that engaged the attention of the directors at this meeting was the accountability of the officers in regard to the disbursement of money. A simple but effective plan was adopted. Each overseer was directed to keep a book in which were enrolled the names of each person employed by the company, with the columns properly ruled for an exact account of the days on which each hand was employed and also of the days when absent. Every fortnight he was required to render an account to the assistant manager, "who, if he approved the same, was to certify thereto, and present it to the principal, and if he approved of the account, it would be authenticated to the treasurer to furnish such sum of money as would be sufficient to discharge the account."¹²

Although the workmen received liberal wages and the directors and the superintendent were disposed "to abate the severity of the labor by granting every reasonable indulgence,"¹³ an insubordinate spirit was soon manifested among the hands to such an extent as to require immediate correction. They were not only insolent in their attitude toward their superiors, but either refused to do the work assigned them, or did it very carelessly. Having determined to have at least one-half of the workmen discharged, Rumsey reported all the facts relative to the insubordinate men to Washington, who called a meeting of the directors at Alexandria on the ninth of September. After a careful consid-

¹¹ *Minutes of the Meetings of the Board of Directors of the Potomac Company.*

¹² Pickell, *A New Chapter in the Early Life of George Washington*, p. 73.

¹³ *Ibid.*, p. 77.

eration of existing difficulties, the Board declared its opinion that it would facilitate the work to purchase sixty servants for the use of the company. The treasurer was, therefore, instructed to ascertain the best terms upon which they could be obtained.¹⁴

The summer of 1785 was spent in blasting and removing the boulders at Seneca Falls and Shenandoah Falls. In the autumn attention was given to excavating a canal around Great Falls. Work was frequently interrupted during the late summer and the autumn of 1785 because of frequent heavy rains that caused the Potomac to rise and thus prevented the hands from working. Thomas Johnson wrote in September to Washington of the progress of the work:

I received your letter of the 10th inst., five days after its date and the next day had an opportunity of showing it to Mr. Lee. He had very lately been to see Mr. Rumsey and was Spectator of several successful Blasts. Rumsey had discharged disorderly fellows and had but one left that he was in any way desirous of getting rid of. He had then about seventy hands. Mr. Lee says the men seemed to work with Spirit and the Difficulties appear less in the progress of the work than were expected. It seems they only want more Strength.¹⁵

On September the thirteenth, the superintendent wrote from Seneca Falls to Hartshorne:

Pleas to purchas two Small Coils of Rope, Such as they Use for small boat halyards. it is for halling our cannues off and on from the Rocks. The powder that is Sent doath not answer our purpose near as well as Coarse Cannon powder, therefore Should be glad if we could have it brought from Baltimore if there is none in town.

¹⁴ *Minutes of the Meetings of the Board of Directors of the Potomac Company.*

¹⁵ *George Washington Papers*, Library of Congress.

On the twentieth of September, Rumsey wrote to Hartshorne:

Shenandoah Falls, Sept 20, 1785

Sir:

Inclosed I send you the Seneca pay Roll. I observed Sum mistakes in the Calculations, which I have Rectified, you will observe the true sums set to the left of the others with pale Ink. Mr. Stuart Requested me to have some Bark Laudanum and a bottle of Castor Oyl Sent to him as Soon as posable as several of the men is Dangerously Ill. Please to send me with the other things two Double and two Single Blocks ready stropped with hooks etc sufficiently large to Reeve Common Schooner hallyards and two other single blocks straped with Iron with hooks to them, which must be large enough to reeve a Small Hawser. I cannot rigg my Boats compleat until I get the aforesaid Blocks.

Having dismissed about half of the workmen employed, the directors, on September 26, 1785, ordered that the secretary write a letter to Messrs. Stuart and Plunkett, of Baltimore and Mr. John Maxwell Nesbit, of Philadelphia, to whom they had made application to purchase sixty servants and "request each of them that as soon as there may be an arrival at either place, out of which this number can probably be procured, immediately to send an express at the expense of the company with the information of it that they may avail themselves of the opportunity of getting them and also prevent purchase being made at both places."¹⁶

It was very important that the work should be carried on with energy and assiduity, as conditions were most favorable, since the water in the river was very low, thus making the obstructions to be removed from the channel

¹⁶ *Minutes of the Meetings of the Board of Directors of the Potomac Company*

easy to locate. "It was also a season of extraordinary health in the Valley of the Potomac, and provisions were abundant and cheap."

The Board, therefore, unanimously favored Rumsey's engaging "such of the hands as deserved encouragement, to continue in the service of the company on the best terms that he could obtain from them."

Rumsey's letter to Hartshorne on the same date shows that, notwithstanding Johnson's optimistic report, the labor problem continued serious and perplexing, as in order to carry on the work the company had found it necessary to employ many undesirable workmen who were so rough that they made the superintendent's life a burden and terrorized the people living near the river.

Keys Ferry, Sept. 26, 1785

Sir —

Inclosed I Send you the Pay Rolls up to Saturday last. I hope you will forward the money as Soon as you posably can, as the men are much Dissatisfied that they do not get the money as soon as it is Due, and Every time that they get a little Drunk, I am cursed and abused about their money in such a manner that contrary to my wish, I am obliged to turn abuser [?] and although I have as yet come off very clear from Hurt, yet it may be attended with bad Consequences in Such frequent attacks.

The post I hear is sick at Leesburg on his way up. Of Course I find no money here for the Discharge of my Last Return, So that a whole Month's pay is due to many of them.

One of our best men had the misfortune of having boath his hands most horridly maimed by a Charge of powder going off that he was attempting to Bore out. The hammer & auger was blew quite out of sight, I hope the president and directors will take his case into consideration and allow the poor fellow something for his lost time.

I am your obt hbl. Servt

JAMES RUMSEY.

On October 18, 1785, the directors "ordered that one hundred good and able Negroes should be hired for the use of the Company, for each of whom there should be an allowance of twenty Pounds, Virg. currency, also cloath them and pay their Levies, and furnish them Rations, viz., 1 lb. Salt pork, $1\frac{1}{4}$ lb. Salt Beef, or $1\frac{1}{2}$ lb. fresh Beef or Mutton and a sufficiency of Bread each Day and also a reasonable Quantity of Spirits when necessary." They further ordered "that the negroes are to come well-clothed, or to be supplied with what may be deficient, which is to be stopped out of the next year's cloathing."

The directors decided that the wages of the men were to remain the same, and that no deduction should be made for the time that the weather did not admit of their working.

Applications were to be made either to William Harts-horne at Alexandria or to James Rumsey. Soon a sufficient number of hands were engaged and they were divided into three groups, one to work at the Great Falls, one at Seneca Falls, and the third at the Shenandoah Falls. Work at these important points was carried on with energy and zeal until early in November when heavy rains caused the Potomac to rise and overflow its banks.

At a meeting of the directors at Alexandria, November 10, 1785, it was "ordered that the Hands now employed at the Seneca Falls, as soon as the Situation of the River renders their working there possible, repair immediately to the Shenandoah Falls in building and repairing huts for the reception of the other hands where they are to continue their work as long as the Season will admit of it to advantage."

It was also "ordered that Rumsey contract for the building of two boats for the use of the Company of such



The Great Falls of the Potomac

C. O. Buckingham, Washington, D. C.

construction, as he shall think most advantageous for forwarding the Work, and also as many more Boats on the construction of the former ones, as he shall deem necessary."

In November a contract was made with William Lyles and Company to furnish "what rum might be necessary for the use of the hands employed by the company on the river," at the rate of two shillings per gallon.

On November the sixth, Rumsey, then at Keys Ferry, after writing in regard to various bills and receipts for supplies, adds:

I am Very Sorry that the task of paying and settling so many accounts falls upon me, it is very troublesome and what I was at first Informed I should not have to Do—I am sorry to find that the post has not gone Down and that my last Return has lain here a week. I have been Very Unwell the last two weeks, added to the moveing of our Camp has prevented my being down or going to Seneca. I have no doubt Mr. Stuart will do equally well without me as the Buisness must suffer if I leave it, and he is so near the Directors that he can have their advice at a short notice.

In this letter to Hartshorne he tells also of the annoyance occasioned by the failure to secure needed supplies and by lack of ready money with which to pay bills. It seems to have been Rumsey's fate to be in a state of financial embarrassment, no matter what his undertaking happened to be.

Dec. 24th, 1785.

Sir,

I Received the amount of my pay Roll from the 5th to the 19th of Nov. 2 last, £63. 16. 10½ but no letter with It. I have been amaseingly Distressed for the 200wt. of powder that I wrote for So Long Since, and also the anvils, the Consequence was my being Obligated to buy a considerable Quantity of powder at a very Dear Rate. Inclosed you have the

pay Roll Due to this Day likewise amt. £137. 4. 4¼. I send you by Mr. Hunt my Expenditures for the Company. The Beef Bills that are with you are Included in it, as I have paid them of, and the Balance appears to be £37. 16. 3¼ in my favor. There is an Order from the Board of Directors for me to have Sum money whether the Sum is ascertained or not I have not heard, but if Consistent Send me what may be Coming to this time Deducting the amt of the Barrel of Sugar I had of you and what Ever money may be due from me as a Subscriber to the navigation of Potomack—I also want £80 or £100 advanced to me for the Companys Use without it I cannot do the Duty which I ought to Do for them the Buisness has often Suffered for want of the present Influence of Gold. The necessity of having it now is greater than time past for the following Reasons, the number of hands is greater the post goes Seldomer the Roads are so bad that wagons cannot travel, provisions get Scarcer and the Season has come that they can get Cash for them. If you cannot Send the moneys above mentioned without a meeting of the Directors, I have Desired my brother who is the Bearer of this to stay untill they have notice and Determine on requizitions.

Sum time ago I Inclosed you two Small Bills, one for timber of Jacob Nackorey [?] the other for coal to Mr. Harper, they Both have been at me for the money, please to Send it and you shall have their Receipts. I want a pair of Steel yards, and a faggot of good Steel sent up when the powder and anvils Come

I am Sir with great Respect .

Your obt. hbl. Servt.

JAMES RUMSEY

To this letter Hartshorne replied:

Your favor of the 24th Dec I recd with 3 pay Roles when I sent you the £63. 16. 10 I had not time to write you as the post could not stay. It is 16 days ago since I sent you two Quarter Casks powder by one Van Swearagen, a wagoner, to be left at Keys Ferry. Please let me know if you have recd. it, as I fear it will be lost. Your acct. of expenditures I have settled with your Brother and paid the Ballance

with the pay Roles your wages to the 1st Jan. 1786 deducting the Barrel Sugar you had of W. H. & Co. and your second dividend to the Potomac Company—a statement of all which he takes up for your satisfaction. Ten of the Directors were with me and Mr. Stewart & your brother were present, but they did not think proper to order me to send you any more money at present. The Stilyard, Steel, Anvils & powder I expect will be sent you by the first waggon I can meet with. As the people you deal with seem to make some difficulty about supplying the Company without ready pay I have wrote to Edwd. Beeson the enclosed Letter and expect you can get flour from him & perhaps Beef & Pork.

Please send him the Letter by the first opportunity.¹⁷

Hartshorne's letter to Beeson evidently did not produce satisfactory results, for on January 23, 1786, Rumsey wrote to him: "I have not heard from Mr. Beeson since he received the Letter you sent up. But I think he can furnish no meat as I heard he sold his pork sumtime since—as for flower I never had any difficulty in getting it at Shepherdstown which is much nigher."

On the first of February Washington set out for the Great Falls to attend a meeting of the directors. On his arrival he found "Colo. Gilpin (who had been there since Sunday) levelling, etc.," and Colonel Fitzgerald, who had just arrived.

They spent the remainder of the day "in viewing the different grounds along which it was supposed the Canal might be carried and after dining at the Huts" went to a Mr. Wheeler's to lodge.

On the following day Washington wrote in his journal:

Spent this day in examining the ground more attentively, and levelling the different ways we had discovered

¹⁷ Manuscript owned by the Chesapeake and Ohio Canal Company.

yesterday, but on Acct. of the swollen state of the River, and rapidity of the current we could not determine absolutely upon the best cut, and therefore directed Mr. Stuart the Assistant Manager, to have all of them opened, accurately measured, levelled, and their bottoms sounded by the first of March when the directors are to be requested pointedly to meet for the final choice.

Dined again at the Hutts; some little time after which, Govr. Lee (who had been detained by high water) and Mr. Rumsey came in. The first concurred in sentiment with us on these measures.¹⁸

On the third Washington returned to Mount Vernon, and soon after his arrival guests "came in, Dined, and stayed all Night. After Dinner Mr. Rumsey arrived and stayed the evening also."

At the next meeting, held at the Great Falls from the first to the third of March, very little was accomplished because of the inclemency of the weather. "We were obliged," says Washington, "tho' we assembled at the huts again to relinquish all hopes of levelling and surveying the ground this trip; and therefore resolved on the rout for the Canal from the best view we could take, and information get: and after doing some business, as a board—particularly resolving to advertize a Contract for the Supply of our labourers with provisions—we broke up the meeting."¹⁹

In the minutes of this meeting we find that "It was ordered that Mr. Rumsey, the Superintendent of the work, contract for finishing the work in the Gut at the Falls at Shenandoah on the best Terms possible and that his personal attendance be requested at the place where the greatest force is employed."

In Rumsey's letter to Hartshorne written at Great

¹⁸ *George Washington Diaries*, Vol. III, pp. 10-11.

¹⁹ *Ibid.*, p. 26.

Falls on the twenty-sixth of March, we learn that he is making preparations to entertain guests.

After ordering two pounds of Osnaburg thread and a ream of paper for "the Company's use," Rumsey says: "As we Expect the gentlemen on Monday, I should be glad if in your power to send me three gallons of good Sperits Three do good medera wine, half a dozen drinking glasses, four tumblers (a half & two hole pints) one Quart Decanter and half a dozen Common tea Cups and Saucers—and Six Stone plates—and one Dish—our Baker Andrew Nelson will hand you this and will call on you before he comes off [?] to see if you have an opertunity to Send them here or to Mr. Shepherd before Satterday Evening. Let me hear from you by him for if no wagon can be got I must send a man Down on horseback on Saterdag to bring as many of them as he can."

To this letter the writer adds this significant postscript: "Two nutmegs."

Hartshorne's note: "Tuesday—Mr. Darke's wagon will call for the within articles to-morrow," relieves one's anxiety over the probability of the arrival of the visitors before due provision had been made for their entertainment.

The very next day Rumsey wrote again to Hartshorne, and after asking him to send flat bar iron for the wheel barrows, added: "Be kind enough to send me two Loves of Sugar, 6 lb. Brown Do, 5 galons Best sperits and 1 lb. of Mr. Chapin's Tea, Such as I had of him Before."

The "Gentlemen" for whose entertainment Rumsey made such elaborate preparations, were Mr. Brindley, manager of the Susquehanna Canal, and Mr. Harris, manager of the James River Navigation Company, of whom Washington wrote in this letter.

Mt. Vernon, 31st. March, 1786.

To Col. Gilpin and Fitzgerald.

Gentn.,

Yesterday Mr. Brindley, in company with a Mr. Harris, Manager for the James river Company, left this on their way to Richmond from whence Mr. Brindley expects to be returned, as far as Alexandria, in seven days from the date hereof. I have engaged him to call upon Colo. Gilpin on his rout back.

Mr. Brindley and Mr. Harris took the great Falls in their way down and both approve of the present line for our Canal—the first very much. He conceives that 9-10ths of the expence of the one fifth proposed will be saved by this cut, the work altogether as secure, and the entrance into the river by no means unfavourable. He thinks however that a good deal of attention and judgment is required in fixing locks there; the height of which he observes is always governed by the ground—they frequently run from four to eighteen feet, and sometimes as high as twenty-four. The nature and declination of the ground, according to him, is alone to direct—and where this will admit he thinks the larger the Locks are made the better, because more convenient.

With respect to this part of the business I feel, and always have confessed an entire incompetency:—nor do I conceive that theoretical knowledge alone is adequate to the undertaking. Locks, upon the most judicious plan, will certainly be expensive; and if not properly constructed and judiciously placed, may be altogether useless. It is for these reasons therefore that I have frequently suggested (though no decision had been had) the propriety of employing a professional man.

Nevertheless whether the expense of obtaining one in, and bringing him from Europe has been thought unnecessary, or too burthensome for the advantages, which are to be expected, I know not; but as it is said no person in this country has more practical knowledge than Mr. Brindley, I submit to your consideration the propriety of engaging him to take the Falls in his way back; to examine, level and digest a plan for Locks at that place; if it shall appear good, and his reasons in support of the spots and sizes conclusive

it will justify the adoption; if palpably erroneous, there is no obligation upon us to follow him, and the expence in that case is the only evil which can result from it — this for the chance of a probable good, I am not only willing but desirous of encountering; and if Colo. Gilpin has not already made the trip to that place which he proposed at our last visit, and disappointment there, it would give me great pleasure if it could be so timed as to accompany Mr. Brindley; this would not only give countenance to the measure but aid, also, and might serve to remove the little jealousies which otherwise arise in the minds of our own managers. Taking Mr. Brindley to the works now may ultimately save expence — at the same time having a plan before us, enable us at all convenient times to provide materials for its execution.

I am, &c.

G. WASHINGTON.

P. S. If my proposition is acceded to, it would be better to fix at once what Mr. Brindley is to receive, and I will readily subscribe my name to what you two gentlemen shall agree to give him.²⁰

The hands working for the Potomac Navigation Company had acquired a bad reputation as disturbers of the peace, but in the case discussed by Rumsey here it seems that there was "Much ado about nothing."

Great falls March 29th 1786

Dr. General.

This will be handed to you by Mr. Brindley, we have had the pleasure of his and Mr. Harris Company Since yesterday and they Boath approve of what is Done and proposed there —

On Sunday Evening the 26th of this inst. I Received your favor of the 20th Respecting the Conduct of the people working here. It Distresses me that you had ocation to Write on Such a Subject. What follows is as near what has hapened Since I Came Down as I am Able to Relate.

²⁰ Ford, *The Writings of George Washington*, Vol. XI, pp. 22-24.

On my way Down I heard great Complaint Against the people of the falls. But as Such Complaint has been frequent when no outrages has been Committed, I thought But Little of them. I was But a Short time at the falls before I Set Out for alexandria, and Mr. Stuart with me for Baltimore. During which time they Behaved themselves Very well, On my Return from alexandria to this place the Complaints that was made to me was Shocking, that no person Could Come on their Lawful Buisness But what got abused, and that Officers of Justice Durst not go on the ground to Execute their Offices In Consequence of these Complaints, I Immediately Set up advertisement, Letting the neighbors know that they Should be treated well when they Came to the place, and the officers that they Should be protected In the Execution, for which I pledged myself to them notwithstanding these advertisements, the officer that had Mr. Jacksons warrants Summoned fifty men to Come here on monday Last to aid and assist him, This Expedition was Intended private which was the Reason your Letter was not Handed to me Sooner, But I was Luckey enough to Meet with Mr. Stanhope at Mr. Wheelers on Sunday and he Informed me of it and where they ware to meet I Sett out on monday and met them, all armed. within a mile of the falls. I beged them to Stop, Expostulated with them for Sum time and gave them Every Ashorence in my power that if they would Stop I would take the officer alone and Bring any men that they would name they at first agreed to it But Soon Changed their minds and the most of them moved on again I Beged them to Listen to me and more Expressed my Desire to Convince them that the men was under Good Discipline and at Lenth By the Exertions of Mr. Stanhope & Mr. Gunnel. I Carried my point So far that the Justises and the officers was to go with me to the works while the Rest was to go to the Buildings where I was to perade the Hole of the men, I had previous to my Setting out Let the men know that an officer was to Be with them that Day to take a number of them, and I Charged them to Behave well when we Came on the works, they accordingly Did, I ordered them all to the House and made them form a Line untill the officer Called out what he wanted, all this was Done without a murmur, the

number taken was about Sixteen they ware then Carryed off and put upon tryal which I attended and Mr. Stuart Returned Before it was Over, The Hole of Mr. Jacksons affair amounted to this, that his Son was In Company with a number of them at Mr. Canns that they threatened Sumbody Very hard that he beleived It to be him, that he Borrowed a horse and rode home for his gun and Returned Shortly with it and presented it and swore that he would kill the first man that ofended him, and they Doged him Sum time, and finaly he made his Escape, the men was Sentenced to have Sum Lashes, But Mr. Stanhope, Coleman, and Gunnel, prevailed with Mr. Jackson after the Judgment was passed to Remit the Hole punnishment which he Did with a great Deal of Reluctance There was two Servants got five Lashes apeace for Sum Offense to a woman that Lives at Mrs. Bunguses, I Shall Endeavor and I make no Doubt But the men Can Be kept in good order I am Sir with Sincere Regard your most Obt. and Very

Hbl. Servt.

* JAMES RUMSEY²¹

Rumsey's letters indicate that much of his time was taken by petty tasks, among them the providing of clothing and other supplies for the employees of the company. On the twentieth he wrote to the treasurer: "Be kind enough to send me one Bolt of Oznaburg from Mr. Wienters and a peace of Blanketing as we have many new Recruits that has none. try and send me the Bill and I will account with you for the Blanketing as Soon as I give them out, as I make every man pay for his blanket that gets one. It is troublesome but it is necessary that we have Sum on the Spot to furnish new Comers."

In the lists of hands employed by the Potomac Company the word *eloped* is frequently found written after the names of the employees. From advertisements in the pa-

²¹ *George Washington Papers*, Library of Congress.

pers of that day, it appears that the indentured servants or redemptioners purchased from European ships, landing in Baltimore and Philadelphia, gave Rumsey and his assistants no little trouble.

The Maryland Chronicle of February 22, 1786, contains this item:

From the Alexandria Gazette of the 1st. January we hear that several servants who had been purchased to work on the potowmack Navigation lately ran away, but being soon after apprehended, were sentenced to have their heads & eyebrows shaved, which operation was immediately executed, and is to be continued every week during the time of their servitude, or until their behavior evinces that they are brought to a sense of duty, This notice, it is expected, will sufficiently apprise the country should they again make a similar attempt.²²

The superintendent published these advertisements offering rewards for the return of the servants:

These indented Irish servants, Wm. Fee (shaved,) James Nevin, Francis Cacy, Arthur Mullin, (shaved) Thos. Moore, James Munnay, Hugh Taylor, Robt. Meighan, Taylor took a variety of clothes with him, among them a super fine green cloth coat with bright buttons. £60 reward for all or £10 for each.

Four more Irish servants & a woman belonging to a neighboring planter, claims to have married Taylor, she wore a crimson frieze clothe cloak, a blue petticoat & a white furred hat, (all stolen,) £100 reward for all or £20 for each.²³

The following letter indicates that petty tasks that fell to Rumsey to perform must have taken up almost as much

²² Bacon-Foster, *The Potomac Route to the West*, p. 72.

²³ *Ibid.*

of his time as that spent in supervising the men employed by the company:

Great Falls, June 12th 1786

Sir:

For the thirty Servants Just arrived we shall want (Immediately) Blankets with Linning for Shirts and Trousers. Col. Deakens has not furnished them with neither Shoes nor hats, he not being at home when they were sent for, he was met afterwards and says he will Send them if Applied to. Perhaps you can get them brought to Alexandria and send up in a Wagon with the other articles.

The Imported Shoes is so bad that I will not answer to furnish the Servants with any more of them, We have two Shoemakers and therefore will have all the Shoes made, What Leather is here will be done in a Short time, Please to keep ussupplied with that. Send us 200wt. of Gunpowder as we shall shortly use great Quantities of it, the diging being almost Done, We shall shortly want 1000wt of $\frac{3}{4}$ Inch bar Iron for augers, and 200wt of 1 Inch & $\frac{3}{4}$ for hammers. Capt. Westfall will have a waggon coming soon which will bring the light articles. I am with great Respect.

Your obt. & hbl. Servt.

JAMES RUMSEY

P. S. Please to send 200wt. of oakum to Capt. Morrow in Shepherdstown for the Boats.

This letter to Hartshorne, which was the last written to him by Rumsey while superintendent of the Potomac Navigation works, gives us further insight into the difficulties with which Rumsey had to deal:

Great Falls Potowmak July 3d 1786

Sir:

We have Been much Imposed upon the last Two weeks in the powder way (we had our blowers, One run off the other Blown up) we therefore was Obliged to have two new hands put to Blowing and there was much attention given to them least Axedents should happen yet they used the powder Rather too Extravagant. But that was not all they

have certainly stolen a Considerable Quantity as we have not more by us than will last until tomorrow noon. Our hole troop is Such Villians that we must for the future give the powder into Charge of a person appointed for that perpose to measure it to them on the ground by a Charger. — I hope you will have it in your power to send us powder here Immediately (if left at Mr. Shepherds we can get it). I am just finishing some houses at Bath for which I want four Boxes of window glass 8 by 10, if you will be kind enough to furnish it, and Deliver it to the Bearer of this letter, Mr. Mordacai Throckmorton, He will send it up for me, and I will Settle with you for it, as well as all other of my accounts, the next time I Come to town, I am with esteem your friend and serv't James Rumsey

P. S. please to send 1 lb of Salt Petre with the powder, We think we Can make matches with it that will Save powder.

Historians tell us that Rumsey gave up his position in order to devote his time to the perfecting of his steamboat, but, from an entry in Washington's diary dated the fourth of July, this does not seem to be the case:

The Directors determined to prosecute their first plan for opening the Navigation of the river in the bed of it, and as streight as it was practicable, and ordered the Manager to proceed accordingly; and to remove the hands from the works at the great falls to the Seneca and other parts of the river, as it was their wish, having but 3 years from the commencement of the Act to perfect the Navigation above the falls. Mr. Rumsey having signified his disinclination to serve the Company any longer for the pay and emoluments which had been allowed him, and the Directors not inclining to encrease them, they parted, and Mr. Stuart (the first assistant) was appointed in his place. Mr. Smith the other assistant had his wages raised to £200 Maryld. Curry. pr. Ann.²⁴

About a month after severing his connection with the

²⁴ *George Washington Diaries*, Vol. III, p. 85.

Potomac Navigation Company, Rumsey preferred a number of charges against Mr. Stewart, who had succeeded him as superintendent, and presented them in person to the Board.

Washington wrote in his journal on the second of October:

Set out before Six Oclock, and arrived at the Great Falls abt. half after nine. Found Colo. Gilpin there and soon after Govrs. Johnson and Lee, and Colo. Fitzgerald and Mr. Potts arrived, when the board proceeded to enquire into the charges exhibited by Mr. James Rumsey the late manager, against Mr. Richardson Stuart, the present Manager of the Company's business. The examination of the Witnesses employed the board until dark, when the members dispersed for Lodgings. I went to Mr. Fairfax's.²⁵

Rumsey's charges were as follows:

1st. The incapacity of the said manager for carrying on the great business of opening the River Potomac, his want of competent knowledge in mechanics, viz: in building four machines at a great expense for raising stone, none of which answered the purpose.

2d. The said manager's want of truth and candor in causing the overseers to have buried one of the said machines on the arrival of General Washington, that his ignorance might not come to the knowledge of the President and Directors, or accounting for the money so uselessly expended.

3d. The fifth machine he erected was still insufficient for the purpose intended, and did not succeed untill materially amended by the late manager, James Rumsey, notwithstanding he had disobeyed the orders of the said Rumsey, before in constructing a machine for the above purpose, and to conceal his own misconduct had endeavored to ridicule the said machine to the overseers by putting it up be-

²⁵ *George Washington Diaries*, Vol. III, p. 122.

fore it was finished as planned by the said Rumsey, by which conduct not less than sixty dollars were entirely wasted.

4th. The said manager being unworthy of confidence by numerous misrepresentations to the President and Directors, especially the rock joining the canal (a place sufficiently known to the said Stewart and Directors without further description here), first by greatly approving it, and then concealing that approbation from Gen. Washington, Col. Gilpin, and Col. ———, and his extreme ignorance in intending but one wall (as he informed the late manager James Rumsey), which he himself had staked off on the inside of the canal, instead of the outside thereof, which all engineers will condemn.

5th. The said manager did greatly retard the operations by frequently ordering the people from the works the overseers had put them at, declaring it was wrong, and setting them to work at other places without any reason therefor, especially telling one of the overseers who convinced him he was wrong, that it was to keep up his dignity.

6th. That the said manager did greatly injure the said work, by introducing very improper persons as overseers, especially Owen Dolly, whose bad conduct even he was so ashamed of that he endeavored to hide it from the President and Directors by denying he ever acted as an overseer, thereby adding falsity to fault, and ——— Knox, who is now in Fairfax jail committed for forgery.

7th. That the said manager was very severe, not to say cruel, to the servants, which was not only very detrimental to those on the spot, but the rumors thereof reaching the neighborhood many persons coming to hire at the works were deterred and returned. That his misconduct has obliged Leonard Jamison and Joshua Crow, two overseers of unexceptionable good character, to leave the works, and has declared that old convicts make the best overseers, as themselves know what it is to be whipped.

8th. That the said manager, by declaring that officers of justice should not serve any process at the works, thereby encouraged the people under his command to depredate upon

the neighboring inhabitants and destroy their stocks, and by cruelty and bad behavior to individuals prevented necessities being brought, especially his ordering a servant to spit in the face of Thomas Moxley, an inoffensive old man, and causing another servant to burn Michael Barnet with a hot iron without reason, which unworthy office the servant performed with such reluctance, that the manager, to compel it, was obliged to have recourse to blows, the injured person and beaten servant equally and justly complaining of such unparralleled wrongs.

9th. That when James Rumsey, the late manager, endeavored to compose the differences that had arisen between the people at the works and the neighborhood, in his absence the said Stewart endeavored to keep up the animosity, by blaming the neighbors to the late manager, and exculpating the servants before the magistrates, and that upon all occasions in his power would insinuate against the late manager, repeating some things untrue, by concealing others, and in particular once before two of the Directors (wishing to saddle the late manager with the disorders which had happened in his absence) asserted, that he never saw a set of better behaved men, or men under better discipline, in his life, than the people were at the works on the arrival of the said Rumsey.

10th. That much injury has accrued to the company and the work much retarded by the fears of the country people occasioned by the manager's connivance at or occasioning of the ill treatment which too many persons had received, whom business or curiosity had induced to visit the works, insomuch that one of the contractors to feed the people (Col. Dark), since the appointment of Stewart cannot get wagoners or stock drivers to convey the provisions to the works, unless he will send one of his sons to protect them.

(Signed) JAMES RUMSEY.

August 4. 1786.²⁶

²⁶ *Minutes of the Meetings of the Board of Directors of the Potomac Company.*

A copy of these charges was placed in the hands of the president and directors of the company by Rumsey. The charges having been duly considered and witnesses examined, the Board was prepared, the third of October, to submit an opinion of the matters in controversy. All the members were present, and also Rumsey and Stewart.

The president requested the clerk to read the opinion as follows:

The Board having heard the charges aforesaid exhibited by Mr. James Rumsey, and the testimony adduced in support of them, and having maturely considered the testimony in support of them are of opinion:—

On the 1st. Previous to the first appointment, the President and Directors took the measures they thought most likely to give them an opportunity of employing managers who had experience in works of the nature of that in contemplation, but as no person offered who had practical knowledge in such business, Mr. Rumsey was appointed, and continued as principal till his resignation, on which event the Board, under all circumstances, advanced the present to the place of the late manager without any endeavors on the part of Mr. Stewart to impress on the Board an idea of his competency to the work, and in general he had not fallen short of their expectations in its progress. The defect alleged in the four machines for raising stone was so easily remedied by a small addition, that the Board do not consider those machines as any evidence of Mr. Stewart's want of mechanical knowledge.

2d. It appears to the Board that no order was given by Mr. Stewart to have one of the machines buried, and that the part of the work concealed has been since made use of, and that Mr. Stewart's concealment of a part of it was not from any reprehensible motive, and that on the whole of the evidence this seems to be a frivolous charge.

3d. The inference in which this charge consists is unsupported.

4th. No misrepresentations have been made to the President and Directors, the first part of the charge is un-

founded, and no evidence appears to support the remaining part of it.

5th. It does not appear to the Board that Mr. Stewart used any severities that the necessity of the case did not require, and that Mr. Jamison and Mr. Crow having left the works should not be imputed to any misconduct in Mr. Stewart.

8th. The first part of the charge is unsupported by evidence, but that facts within the knowledge of the Board are in contradiction to it. With respect to Moxley, the evidence proves the order to have been given, but not executed, and that there must have been some misconception, as Mr. Stewart and he were on friendly terms and no provocation given. With respect to Barnet, the charge is proved, and that in this Mr. Stewart acted with an impropriety the Board disapproves of.

9th. The charge of Mr. Stewart endeavoring to keep up the animosity between the people at the works and the neighborhood, is not proved. His conduct before the magistrates from the information of one of them, appears to this Board to be proper and commendable; and the Board, nor any member of it, can recollect any conversation or insinuation of Mr. Stewart's, which had any tendency to lessen the late manager in their opinion.

10th. That the fears of the people of the neighborhood to visit the works have prevented that confidence and free intercourse which is desirable is too true, but the Board do not believe that Mr. Stewart hath given just cause for those fears. The Board have taken every means in their power to employ laborers and workmen who they expected would be the most easily governed, but their endeavors have been ineffectual. They have been reduced to the necessity either to let the work stand, or of purchasing servants and hiring such as have offered, amongst whom many have proved to be of very bad morals and turbulent dispositions. And this Board are of opinion that the fears of the country people have originated in the ill conduct of the people necessarily employed in the works, and have been widened by exaggeration. The Board are of opinion that Mr. Stewart, from several instances of his conduct, hath exerted himself to pre-

serve regularity and order, and have a confidence that his conduct and that of all the company's officers will be calculated to this end, without which they can as little merit and expect the approbation of this Board.²⁷

George Washington's comment that Rumsey's charges against Stewart appeared "malignant, envious, and trifling"²⁸ and the Board's failure to find the new manager guilty of any of the charges except one must not be taken as absolute proof that they were unfounded. The witnesses, many of whom were employees of the company, were naturally desirous of being on friendly terms with the new superintendent. Moreover the members of the Board were no doubt loath to acknowledge any misconduct or lack of efficiency on the part of Stewart, for to have done so would have been an acknowledgment of their own incompetence in that they had not only retained him in the employ of the company but had promoted him.

In June, 1788, Rumsey's successor "was removed for reasons relative to the interest of the company. . . . For some time past his own conduct had created dissatisfaction among the officers of the company on the river and sundry charges of a serious nature had been brought against him."²⁹

Stewart having failed to appear at the time set for examining witnesses relative to the charges against him, the board addressed to him the following remarkable letter:

We met today by appointment to hear the charges against you but could not with propriety go into an examination of witnesses in your absence, which however to be regretted we believe is involuntary. On a general view of the situation of the Company's affairs being of the opinion that

²⁷ *Minutes of the Meetings of the Board of Directors of the Potomac Company.*

²⁸ *George Washington Diaries*, Vol. III, p. 122.

²⁹ Pickell, *A New Chapter in the Early Life of George Washington*, p. 108.

the present funds or prospects will not warrant our continuing two managers we have come to the enclosed resolution. It is with reluctance we found ourselves under the necessity to make an arrangement which at this point of time may possibly be thought by your enemies to be occasioned by the charges against you, but it has proceeded solely from our duty and inclination to promote the Company's interest without being influenced in any degree by facts alleged and not examined into. The preference given to Mr. Smith is on different principles and we expect cannot surprise you or hurt your feelings. We request on the expiration of your present year you will deliver up the property of the Company under your care to his hands.

(Signed)

G. WASHINGTON, P.

THOS. JOHNSON

T. S. LEE

GEO. GILPIN³⁰

In the dismissal of Stewart we have further evidence that Rumsey's charges against him had a real foundation and were neither imaginary nor "trumped up" in order to bring him into disfavor with his employers.

Rumsey now had abundance of time to carry on his steamboat experiments, but, being without an income, was handicapped greatly by lack of funds with which to pay expenses.

³⁰ *Minutes of the Meetings of the Board of Directors of the Potomac Company.*

Chapter IV
STEAMBOAT AND STREAMBOAT
EXPERIMENTS

Chapter IV

STEAMBOAT AND STREAMBOAT EXPERIMENTS

The exact time of Rumsey's conceiving the idea of propelling a boat by the power of steam is not known, as the inventor never volunteered any information on the subject other than that during the fall and winter of 1785 he was engaged in experiments on improvements of some steam engines which he had "long conceived would become of the greatest consequence in navigation."¹

John Wilson, "a highly respectable gentleman" of Philadelphia, who in the summer of 1783 was a visitor at the Warm Springs, now Berkeley Springs, gave the following certificate on July 4, 1788:

I do certify that Mr. James Rumsey of Berkeley county, Virginia, in a conversation I had with him at Warm Springs, in the latter end of July or beginning of August, 1783, told me that he intended to construct a boat to go by the power of steam, and pointed out the great expense it would save in water carriage."²

Juliana Stewart of Philadelphia certified also that in the autumn of 1783 on his return from Warm Springs, John Wilson told her that Rumsey "was about to construct a

¹ *A Plan, Wherein the Power of Steam is Fully Shewn*, p. 3. Cf. also experiment described by Orrick. *Ibid.*, p. 16.

² Barnes, *Remarks on Mr. John Fitch's Reply to Mr. James Rumsey's Pamphlet*, pp. 13-14.

boat that would go by the strength of fire or steam which he, the said Rumsey, intended to have completed soon.”³

Nicholas Orrick, on November 24, 1787, made oath before William Little, a justice of the peace of Berkeley County, Virginia, that Rumsey informed him in the year 1784 that he was projecting a boat to work with steam, and that he had been on board the boat “when going by the power of steam.”⁴

On October 18, 1816, Orrick made the following statement in regard to Rumsey and his first steamboat:

In the year 1782, I became acquainted with Mr. James Rumsey, then living in the county of Berkeley, and state of Virginia; and in the year 1783 we entered into partnership in a store; we lived together and were very intimate as partners and friends. About the beginning of the year 1784, James Rumsey built a boat at Shepherdstown, in the said county, which was intended to be propelled by steam. In the course of the year, Mr. Rumsey was much engaged in preparing the machinery necessary to propel the boat. In the fall of the same year he informed me that he was ready to make an experiment, and gave me an invitation to go on board with him and his brother-in-law, who executed his plans: a privilege, I believe he would not have granted to any other person at that time, as he kept every thing as secret as possible. We went on board the boat (then lying in the Potomac, at Shepherdstown) some time after night; pushed out into the stream. When the steam and other things were ready, he put them into operation, which did actually propel the boat, but not to his satisfaction. I believe that Mr. Rumsey continued his experiments for two or three years. He labored under many disadvantages. He was very poor, and had no resources, and no friends that were able to assist him; and good workmen were not to be had.

³ Barnes, *Remarks on Mr. John Fitch's Reply to Mr. James Rumsey's Pamphlet*, p. 16.

⁴ *Ibid.*, p. 16. See also affidavit of George Rootes, *Ibid.*, pp. 15-16.

If he had not labored under these disadvantages, I believe he would have succeeded in a short time.

NICHOLAS ORRICK

In writing of experiments in the application of steam to vessels Whittlesey, a biographer of John Fitch, says:

The first with which we are acquainted in this country took place in secret near Shepherdstown, Va., during the fall of 1784. It was made by James Rumsey, a native of Maryland and a resident of Virginia, who had conceived the project in 1783.⁵

George Michael Bedinger, Rumsey's former partner in the milling business, made oath on November 28, 1787, before John Kearsley, a justice of the peace of Berkeley County, that Rumsey had informed him "in or before the month of March, 1784, that he was of the opinion that a boat might be constructed to work by steam, and that he intended to give it a trial, and mentioned some of the machinery that would be necessary to reduce it to practice."⁷

In a letter to Thomas Johnson, former governor of Maryland, George Washington wrote on November 22, 1787, that in November, 1784, while in Richmond, Rumsey "spoke of the effect of steam and of the conviction that he was under of the usefulness of its application for the purposes of navigation."⁸

In a letter to Washington, on November 10, 1785, Rumsey wrote:

I have taken the greatest pains to perfect another kind of Boat upon the principles I was mentioning to you at

⁵ *Report No. 324, House of Representatives, 27th. Congress, 2nd. Session, pp. 8-9.* Cf. also Orrick's description of one of Rumsey's experiments.

⁶ "Justice to the Memory of John Fitch," *Western Literary Journal and Monthly Review*, February, 1845.

⁷ *A Plan, Wherein the Power of Steam is Fully Shewn*, p. 19.

⁸ *Washington Letter Book*, Library of Congress.

Richmond. I have the pleasure to Inform you that I have Brought it to the greatest perfection. It is true it will cost Sum more than the other way But when Done is more manageable and can be worked by as few hands the power is amence and I am Quite convinced that Boats of passage may be made to go against the current of the Mesisipia or Ohio River, or in the gulf Stream from the Leward to the Windward Islands, from Sixty to one hundred miles per Day I know it will appear Strange and Improbable and was I to Say thus much to most people in this neighborhood they would Laugh at me and think me mad But I can ashore you Sir, that I have Ever Been Very Cautious how I aserted anything that I was not Very Certain I could perform Besides It is no phenomna, when known, But Strictly agreeable to philosphy, the princeples of this Last kind of Boat, I am Very Cautious not to Explain to any person, as it is Easy performed and the method would come very nateral to a Rittenhouse, or an Eliot. The plann I mean to persue is to Build the Boat, with Boath the powers on board on a Large Scale and then Sir, if you would So good enough Once more to See it make actual performances, I make no Doubt but the assemblys will alow me something Clever which will be better for the public as well as my Self, than to have the Exclusive Right, I am astonished that it is so hard to force an Advantage on the public, admit it Did make the fortune of one man.⁹

In reply, Washington wrote:

It gives me much pleasure to find by your letter that you are not less sanguine in your boat project than when I saw you in Richmond, and that you have made such further discoveries as will render them more extensively useful than was first expected. You have my best wishes for the success of your plan.¹⁰

In the summer of 1785, Rumsey employed his brother-in-law, Joseph Barnes, to build a boat near Bath, now

⁹ *George Washington Papers*, Library of Congress.

¹⁰ *Washington Letter Book*, Library of Congress.



Reproduced from a sketch by Colonel Alexander R. Boteler,
by the courtesy of Miss Helen B. Pendleton.

The First Boiler Used on Rumsey's Steamboat

Berkeley Springs, and early in the fall had the boat brought down to Shepherdstown. The boiler was an iron pot with a lid fastened by rivets and solder. Warner Briscoe, on March 29, 1837, wrote from Cincinnati on his return from a visit to Shepherdstown to Mr. I. D. Kinkead of Hopkinsville, Kentucky, that the boiler of Rumsey's boat was at that time in the cellar of Captain Jacob Haynes, a blacksmith who aided Rumsey in making many parts of machinery. "The boiler is nothing more than an iron pot . . . and can be seen by any person whose curiosity may lead them to that part of Virginia."¹¹ Some time later, the boiler came into the possession of Colonel Alexander R. Boteler, who was greatly interested in Rumsey and his invention. On March 18, 1851, Colonel Boteler wrote to Charles Whittlesey:

The iron pot which constituted a part of the original boiler of 1785 (and which I obtained from the late Capt. Haynes of Shepherdstown who assisted Rumsey in constructing a part of the machinery) is no longer in my possession, as some years ago I presented it, at the suggestion of Dr. Saml. K. Mitchell of Philad. to be deposited in the Franklin Institute. . . . You may get an idea of the part formerly in my possession from the following sketch.¹²

In the fall of 1785, Rumsey confided his plans to Thomas Johnson, who wrote to him, December 18, 1787:

I was entirely ignorant of the principle on which you were to gain your power, and your manner of applying it, till our return from the Great Falls in October or November (but I think October) 1785, and wished me to promote you, having cylinders cast at my brother's and my works; the attempt did not succeed.

¹¹ *Burnett Manuscripts*. Papers of James D. Rumsey, son of Dr. Edward Rumsey, now owned by Mr. Arthur Burnett of Cadiz, Kentucky.

¹² *Boteler Manuscripts*.

I considered myself under an obligation to secrecy till in the progress of making copper cylinders in Fredericktown, some time after, when I found the designed purpose of the cylinders was a subject of pretty general conversation.¹³

On October 3, 1785, James Madison wrote to Thomas Jefferson:

On my journey I called at Mount Vernon & had the pleasure of finding the Genl. in excellent health. He had just returned from a trip up the Potowmac. He grows more & more sanguine as he examines further into the practicability of opening up its navigation. The subscriptions are complicated within a few shares, and the work is already begun at some of the lesser obstructions. It is overlooked by Rumsey, the inventor of the boats which I have in former letters mentioned to you: He has not yet disclosed his secret. He had of late nearly finished a boat of proper size, wch. he meant to have exhibited, but the house which contained it & materials for others was consumed by fire. He assured the Genl. that the enlargement of his machinery did not lessen the prospect of utility afforded by the miniature experiments.¹⁴

Early in October, Joseph Barnes went to Baltimore to get parts of the machinery cast for the steamboat. On his return Barnes told Charles Morrow, "that he had got four brass cocks cast, that he had been disappointed in procuring money that he expected to receive in Baltimore, had therefore, left the cocks with Mr. Raborg, (the gentleman who got the founder to cast them,) that they should be sent for at the first opportunity." Shortly after Barnes' return, Charles Morrow forwarded the money for the cocks to Raborg by John Thornbur[g] who went to Baltimore with his wagon and brought the cocks back with him. They were

¹³ *A Plan, Wherein the Power of Steam is Fully Shewn*, pp. 18-19.

¹⁴ *Madison Papers*, Library of Congress.

cast by Charles Weir and Company and the price paid was nine pounds and sixteen shillings. Two of these cocks were taken to the shop of Conrad Byers who with the assistance of Phillip Strider, made for them handles and also two springs which Byers understood were for opening and shutting the cocks. Several weeks later he and Strider made two pistons about thirteen inches in diameter, to which they brazed flanges about one and a half inches broad and "sundry other things which he understood were all of them parts of the machinery for Mr. Rumsey's steamboat."¹⁵ Other parts of the machinery were made at Fredericktown.

In December, Joseph Barnes and James McMechen brought down the Potomac to Shenandoah Falls a boat of about six tons burthen with the machinery on board and under the direction of Rumsey "continued adapting and suitably fixing it" to the boat until the seventh of January, 1786, when the ice driving in the river obliged them to desist from their work. They then drew the boat in the mouth of the run, and took the machinery and put it in Hamilton's cellar for the winter.¹⁶

On November 4, 1785, John Fitch, a native of Connecticut, then living in Pennsylvania, who asserted that in April of that year he had conceived the idea of navigating a boat by steam, came to Mount Vernon to try to secure a certificate from Washington expressing approval of his plan, but was unsuccessful.

Concerned lest Rumsey's delay in perfecting his boat might result in his losing the honor of his invention, Washington wrote to Rumsey on January 31, 1786:

¹⁵ *A Plan, Wherein the Power of Steam is Fully Shewn*, pp. 16-17 and *Remarks on Mr. John Fitch's Reply to Mr. James Rumsey's Pamphlet*, pp. 13-16.

¹⁶ *Remarks on Mr. John Fitch's Reply to Mr. James Rumsey's Pamphlet*, p. 8.

SIR:— If you have no cause to change your opinion respecting your mechanical boat, and reasons unknown to me do not exist to delay the exhibition of it, I would advise you to give it to the public as soon as it can be prepared conveniently. The postponement creates distrust in the public mind; it gives time also for the imagination to work, and this is assisted by a little dropping from one and something from another to whom you have disclosed the secret. Should a mechanical genius, therefore, hit upon your plan or something similar to it, I need not add that it would place you in an awkward situation and perhaps disconcert all your prospects concerning this useful discovery. For you are not, with your experience in life, now to learn that the shoulders of the public are too broad to feel the weight of the complaints of an individual or to regard promises if they find it convenient and have the show of plausibility on their side, to retract them. I will inform you further that many people in guessing your plan have come very near the mark, and that one who had something of a similar nature to offer to the public, wanted a certificate from me that it was different from yours. I told him that, as I was not at liberty to declare what your plan was, so I did not think it proper to say what it was not. Whatever may be your determination after this hint, I have only to request that my sentiments on the subject may be ascribed to friendly motives and taken in good part.

I should be glad to know the exact state in which my houses in Bath are. I have fifty pounds ready for which you may draw on me at any time, and I will settle for the whole as soon as possible.

Herewith you will receive a magazine containing estimates of the expenses of the canal in Scotland. It belongs to Mr. Johnson, who requested me to forward it to you. To him you will be pleased to return the book when you have done with it. With esteem and regard,

I am sir, etc. etc.

GEORGE WASHINGTON.¹⁷

¹⁷ Sparks, *The Writings of George Washington*, Vol. XII, p. 19.

In the meantime Rumsey made various improvements, the most important of which was a newly constructed boiler. Iron bars made in the shape and about the size of gun-scalps were obtained from the Antietam iron works. These bars were welded by Michael Entler and Jonathan Osborn and cut with a "male screw at one end, and a female screw on the other end of each barrel, in order that they might be screwed together."¹⁸

In May, 1788, *The Columbian Magazine* contained a drawing of this boiler, and the following description by the inventor:

An Explanation of a new Constructed Boiler, for generating Steam in great Quantities, with very little Fuel, invented by James Rumsey, in the winter 1785.

A B C D D G H, are iron pipes bent as represented by the draft No. 1, crossing each other at right angles, as often as may be found necessary, forming cavities like a bottle case, in which the fuel is burnt, (they must be clamped at the corners to keep them in form) the diameter and length of this pipe boiler, must be in proportion to the quantity of steam wanted. At present we will suppose its diameter to be two inches, and its length two hundred feet. This pipe or boiler may be set in a furnace four feet square inside, and two and a half feet high, and perhaps may make a sufficient quantity of steam, for the largest engines now extant, as the surface of this pipe will be upwards of one hundred and fifty square feet, "which will be exposed to the fire at every point, as it will be among the burning fuel; it may be made of bars of flat iron, about five feet long, welded like musket-barrels, three of which are to be welded together, and then bent to the shape they are wanted, bringing their ends together at DD, until you have a sufficient number for your boiler," on the end of these pipes are cut male screws, one half of which are right handed, the other left, one of each must always come together.

DD, are iron barrels, larger than the pipes, with female

¹⁸ *Remarks on Mr. John Fitch's Reply to Mr. James Rumsey*, p. 5.

screws, cut so as to answer the male screws; this barrel receives the male screws (at the ends of the pipes) into it, and by turning it round, draws them right together; this boiler is fed at A, by a small forcing pump, connected with an air vessel, the use of which is, the water that feeds the boiler is first forced into the air vessel, while the steam is shut off from the cylinder, the re-action of the steam being confined in the boiler, prevents the air vessel from forcing any water into it at any time: but the instant the steam is let into the cylinder, the air vessel by its spring (which is received from the water just forced into it by the feeding pump) forces the water into the boiler at A, which it instantly rushes forward, and is rarified into steam. There is a gage-cock between the air vessel and the boiler to feed the latter regularly, and there is a valve (to which weights are applied) on the top of a pipe that leads from the air vessel, to discharge any overplus water that may be forced into it by the feeding pump.

EF, is a pipe of iron screwed to the boiler near B, by the end, this piece of pipe is then perpendicular. On the turned up end E, is a valve to discharge the extra steam and water, should the boiler be overfed. The grate that holds the coal in this boiler, ought to be so fixed into the furnace as to draw out, and let the coals fall into the ash hole as soon as the machine quits work, or the pipes would be injured by the heat. Perhaps this boiler might be improved by adding a steam vessel on its top, which would receive much heat from the fire round the pipes and take no more fuel, I invented this boiler in the winter of 1785, which will appear by the deposition of Captain Morrow, and Mr. Barnes, (No. 11 and 12) in the printed pamphlet that accompanies this; the workmanship of it was badly executed, as it suffered great quantities of steam to escape, yet I had some success in the experiment made with it on my steam-boat, see the printed certificates, (No. 1, 2, 3, 4, — 5) in the pamphlet.

This boiler has many advantages over the common one, three of which are, it takes less room, less fuel, and it is equal to forcing water much higher than any other kind.

JAMES RUMSEY¹⁹

¹⁹ Vol. II, p. 275.



The Pipe Boiler

Having found some defects in the workmanship of Entler and Osborn, the inventor decided to try the experiment with the old boiler. This trial was made in the spring of 1786, and the boat went against the current of the Potomac, but many parts of the machinery being imperfect, steam escaped, and it was necessary to make repairs. This work was done at Great Falls. The boat was again tried, "but failed in the repaired work, though it made many powerful strokes before it failed, and sent the boat forward with such power that one man was not able to hold her."²⁰

Mr. H. A. Orrick of Baltimore has in his possession a letter written to James Rumsey by Charles Orrick, a relative of the inventor's friend and former partner, Nicholas Orrick, a part of which relates to the progress being made with Rumsey's boat.

Balt. Town, April 25, 1786.

Sir

By meer accidents I this day Met with Mrs. Rumsey and your Brothers by whome I have the satisfaction of hearing of your Boat Skeem answering his Excellencies Gen. Washingtons approbation in Publick print — and be assured Sir, I shall never Rest until I see the Performance myself therefore I hope you will wright to me fully on the matter in your next, which I shall expect to receive By Mr. Steuart or Some Safe hand, and then I shall give myself the pleasure of waiting on you at the Great Falls. . . .²¹

In the summer Joseph Barnes prepared a block and assisted Entler to screw the pipes together and bend them. "They were bended nearly in the shape of a worm of a still, with this difference that the rounds were placed so close, as nearly to touch each other."

In the meantime, since Rumsey was being criticized for

²⁰ *A Plan, Wherein the Power of Steam is Fully Shewn*, p. 17.

²¹ Andrews, *Ter-Centenary History of Maryland*, p. 639.

not perfecting his streamboat, he and Barnes decided to make a trial of the boat equipped with the mechanical devices of the model exhibited at Bath. Fortunately we have Rumsey's own account of the two experiments.

Shepherdstown Sept 19th 1786.

Dr. General —

When I wrote you from alexandria on the Sixth Inst. I was on my way to the Southward and Did not Return to this place untill Last Evening which was the Reason you did not hear from me Sooner what Success we had in the Experiment I mentioned to you in that Letter thet we Expected to have with the Boat. Mr. Barnes got her Ready on Saterday the 9th Inst. and put about three tuns of Stone in her and Could not avoid takeing in nine or ten persons that was waiting to See her Tryed which made near four tuns on Board, when he Set out, the River being a Little up was in his favor as it was not naturally Raped where Tryal was made, he went up about two hundred yards greatly to the Satisfaction and Admiration of the Spectators. But not so to himself for the following Reasons, first the machinery Being fixed on But one Boat, Instead of two, as first Intended prevented her from going So Steadey as She ought to have Done, the people on Board Shouting and Runing Backward and forward added much to this inconvenience, In the next place the poles or Shovers, was made of Wood with Iron Spikes at their Lower Ends, to Sink them, which Spikes proved too Light, and Caused the poles very frequently to Slip on the Bottom, but the greatest Detriment was, that when a pole got a good holt on One Side and not on the Other, it had a Tendancy to give after a Heel which would throw part of the wheel out of water, which weakened the power, and would often Loosen the foot of the pole, So as to make it Slip. These Inconveniencys Mr. Barnes Related to me, they were what I too much Expected from a tryal with one Boat, But not having time nor yet being Able to Build another at the present, was therefore Obliged to Risk the One, It was on wensday on my way up that I got these accounts from Mr. Barnes, we then went on Board for an Other Experiment, But the water had got So Lowe, that It

Did not move But Little more than Two miles per hour, which by my Calculation I had only Sufficient to overcome the friction of the Machine, we moved up Slowly for Sum Distance During which time two or three persons (acquaintances) colected on the Shore and Informed me that many others would be Down Very Soon. I therefore thought it best to put to Shore and take of Sum of the Macheinery, as the first Impression Received of her going was favourable, the Current then too Slow To Impress them again with an Opinion that She would make much progress, the Company Came Down and Insisted much on Seeing her go. I excused myself from it, altho almost Induced to push up to pains falls which was not far above us, But on Considering the Lightness of our poles and the Strenth of the Current in that place I Doubted their Sinking. Besides their is (you know) many Rockes in the place that Lye But Little under water that might Break the Wheel, and the Spectators Generally give their opinion according to what they See, without any allowance for Accident, which Determined me not to attempt It publicly, nor have I made any farther Experiment Since. It is Evident from what has been Done that she would make a tolerable progress in all Currents that is Strait and Clear of Rocks, and moves three miles per hour, or upward, But will go But Slow in Currents under that Velocity. It is also Certain that It will never Answer a Valuable purpos Except when put upon two Boats (as it Cannot be Steady on One) In which Case their is not the Least Doubt that it will answer Every Purpos that was Ever Expected from it. I cannot with propriety Expect you to Come to See her in her present Situation, But if you would wish See Before any alteration is made, and will Let me know It by a Line, I will bring her Down to Sum Convenient place, and will Send you word where to Come to See her.

I am Sir with great Regard your most obt. and Very
hbl Servt

JAMES RUMSEY²²

²² *George Washington Papers*, Library of Congress. See also Rumsey's letter to Washington, written on the sixth of September. *Ibid.* He said that a trial of the boat would be made "on the original plan."

Another trial of the steamboat was made in December with the newly constructed boiler, "but the violence of the heat was so great, from the steam, that it melted the soft solder that a great part of the machine was put together with, and rendered it entirely useless, until repaired with hard solder; about this time, the ice drifting, carried off the boat which the machine was made for, and destroyed her in such a manner that the repairing her was equal to one half the expence of building a new one."²³

Englehart Cruse, who went to Shepherdstown the latter part of May, 1787, and returned to Baltimore, June the eighth, was in Rumsey's workshop, where he saw Barnes adding a piece to a cylinder about eleven or twelve inches in diameter. He also saw the boat, which was lying at anchor about three poles from the shore. Shortly after Cruse's visit to Shepherdstown, he constructed a boiler similar in principle to Rumsey's.

Having repaired his boat and greatly improved his boiler, Rumsey made another trial in September. The boat moved up the Potomac with about two tons' burden, exclusive of machinery, at the rate of about two miles an hour, and though the enthusiastic Morrow declared that the new boiler was the "most capital contrivance to make steam that can be invented; for when the machine is not at work, the whistling of the steam may be heard at least half a mile,"²⁴ it behaved in the most perverse and disappointing manner and opened at several joints, allowing great quantities of steam to escape. Undismayed, Rumsey repaired the boiler, which though it held only twenty pints, was thought to produce more steam than a five-hundred-gallon

²³ Deposition of Joseph Barnes, *A Plan Wherein the Power of Steam is Fully Shewn*, p. 17.

²⁴ Deposition of Charles Morrow. *Ibid.*, p. 17.



The Rumsey Home in Shepherdstown

boiler of the old type. The weight was only about seven hundred pounds, and it occupied no more space than four flour barrels. He invited the public to see his boat make a trial trip on the third of December. For many months "crazy Rumsey" and his "flying boat" had been the talk of the countryside, and one can easily imagine the impatience with which the people awaited the day that would make him either ridiculous or famous.

Before recounting the events of the momentous day on which the "flying boat" made its famous trial trip, it may be well to review what had been accomplished towards the solution of the problem of steam navigation prior to the experiments of Rumsey, Fitch, and other Americans.

In his biography of Robert Fulton, Henry W. Dickinson says:

Merely as showing what a longstanding problem it was, we may mention the alleged attempts to propel boats by steam of Blasco de Garay in 1543 and Denis Papin in 1707. These could safely be dismissed on a priori grounds, even if research had not shown that these experimenters employed muscular power only, when we reflect that Newcomen did not introduce his atmospheric engine—the first practical and satisfactory apparatus for employing steam—till about 1710.

Yet Newcomen's engine was far from being suited to marine propulsion, for its weight for a given power was enormous; in fact it would be hardly too much to say that had any such engine been designed capable of developing power enough to propel a boat of a given size, the engine would have sunk the boat by its own weight.

We are, therefore, not in much doubt as to the success of the scheme of Jonathan Hulls, who took out a patent (No. 556) in 1736 for a stern wheel tug boat actuated by an atmospheric engine. The title of his pamphlet descriptive of his invention, published in 1737, shows clearly the widest extent to which it was expected to apply the steam engine at

this time, as a general substitute for sails and oars it was hardly dreamed of.

It was not until the simple pumping engine of Newcomen had been developed between 1775 and 1782 by the celebrated James Watt into the Cornish pumping engine, and, lastly into the double acting rotative engine suitable for all kinds of power purposes, that, for the first time, the horse-power obtainable from an engine and its boiler, per pound weight, and per cubic feet occupied, was reduced within the limits of displacement of a boat that the engine could propel at a reasonable speed.

For the first really important steps to realize practically this new possibility we must turn our attention to the New World, where extensive waterways but lack of highways early suggested that transport by water was easier than by land, if it could be made as certain. The impetus may have been due to the removal of trade restrictions by the War of Independence, 1775-1783; what the nature of these restrictions had been is shown by the fact that the art of construction of steam engines was totally unknown in America at that time.

We ought perhaps to refer in the first place to the experiments of James Rumsey of Virginia, in hydraulic jet propulsion, a method which he was first to bring to a practical issue although it had been proposed in 1730 by John Allen, M. D., and even earlier by others.²⁵

²⁵ *Robert Fulton, Engineer and Artist*, pp. 126-127. Used by permission of The Century Company.

Chapter V
THE FLYING BOAT

Chapter V

THE FLYING BOAT

On December 3, 1787, as the hour approached for the trial of the marvelous boat about which there had been many strange rumors, it became far from "quiet on the Potomac," as the people of Shepherdstown mingled with their country friends and neighbors who thronged the banks of the river, some laughing and joking, some making slighting remarks about "crazy Rumsey," others anxious yet hopeful for the success of the man who had labored untiringly to bring into reality the dream that had teased his brain through long years of disappointment, discouragement, and sacrifice.

Fortunately we do not have to depend altogether upon the imagination to visualize the scene. Colonel Alexander R. Boteler of Shepherdstown, who expended a great deal of time and effort in an attempt to secure some measure of recognition of Rumsey's great part in the development of steam navigation, wrote the following account of the first successful public trial of a steamboat from information gleaned from persons who had the good fortune to be present on that memorable occasion—an account as vivid as if it had been written by one of the spectators who stood watching the "flying boat" as it steamed up the Potomac, accompanied by numerous excited small boys who ran along on the river bank.

The writer having had the good fortune to be personally acquainted with several persons who were present when Rumsey's steamboat made her first trial trip at Shepherdstown and having felt, from his boyhood, an abiding interest in the subject, took especial pains to obtain from them, individually, what they remembered of the occasion. Among the witnesses referred to, whom the writer knew and with whom in his youth he frequently conversed about Rumsey and his invention, were the following, viz: Mrs. Ann Baker, Mrs. Elinor Shepherd, Major Henry Bedinger, Captain Jacob Haines, Michael Fouke and Peter Fisher.

Mrs. Baker, the first named above, was the daughter of Mr. John Mark (a respectable and successful merchant of Shepherdstown), the widow of Hon. John Baker (a member of Congress during the war of 1812), and the mother-in-law of Governor Thomas Walker Gilmore, of Virginia, who, when secretary of the navy, during Tyler's administration, was killed on board the United States man-of-war Princeton by the bursting of Commodore Stockton's "big gun" the *Pacemaker*.

Mrs. Shepherd, the second lady named in the list, was the widow of Captain Abram Shepherd, who was the son of Thomas Shepherd after whom Shepherdstown was named and an officer in the Revolutionary War, having been one of that gallant band of volunteers who, when the news came to Virginia of the battles of Concord and Lexington, promptly marched to the relief of their Northern brethren, and were the first Southern soldiers who crossed the Potomac to their aid, making their memorable "Bee-line to Boston."

Major Henry Bedinger, the third on the list, was likewise a Revolutionary officer, and also a member of the patriotic company which marched so promptly to the relief of Boston, when Boston was beleaguered; his service in the Continental army began a year before the Declaration of Independence and continued to the end of the war.

Captain Haines was a Frenchman, who came to this country with the Marquis de La Fayette and served under him, as an artificer, in the American army from the battle of Brandywine to the capitulation of Cornwallis at Yorktown. Being a skillful worker in iron, he had been employed by



Model of Rumsey's Steamboat

Rumsey in making some portions of the machinery for his steamboat.

Michael Fouke also a blacksmith and during his apprenticeship aided Philip Entler, of Shepherdstown, in doing iron-work in the engine of the boat.

Peter Fisher, the last on the list, was a well-grown boy living in Shepherdstown, as the five others were, at the time when he saw Rumsey's boat make her first trip there.

Although more than a century has now elapsed since that memorable Monday, the 3rd of December, 1787, when it was first demonstrated to the public that an effective plan for steam-propulsion had been invented, it is not difficult for those familiar with the physical features of the locality where it occurred, to form, from the descriptive accounts by the above-named persons, a proximate idea of the scene as it then appeared, with the attendant circumstances of the occasion, for the meddlesome hand of modern improvement has not even yet done much to mar or modify the general aspect of the quaint old town and its surroundings. Its rocky cliffs, which rise for a hundred feet above the right bank of the river, are as unchanged now, with the exception of a passage-way at one point for a railroad, in their time-tinted ruggedness as in their romantic associations. And as for the river itself—the bright, beautiful and abounding Potomac—"Men may come and men may go, but it flows on forever," the same grand old historic stream in all its varying moods—at times as placid as the slumbering infant that smiles at pleasant dreams and then as turbulent as some wild warrior of the West.

From all accounts the day was a beautiful one, and at an early hour the people from the surrounding country began to pour into town, some coming from a considerable distance and all eager to see the wonderful boat which they had heard would be made to move by some mysterious agency, without the aid of oars, sails, paddles, or setting poles so, that by the time appointed for the exhibition which was the hour of noon, the picturesque cliffs which flanked the ferry-landing were occupied by hundreds of curious spectators, grouped on every "coigne of vantage" that could afford an unobstructed view of the river, a view such as poets

dream of and as drive painters to despair. Assembled at the landing where the boat was moored was a motley crowd of men and boys, representing every class and color in the community, and while there were those there, and not a few, who were well qualified by their acquirements to form an intelligent opinion of Rumsey's invention, there was, of course, the usual complement of village "Sir Oracles," and of those ubiquitous and self-sufficient fools, who are always ready to deride, what they cannot understand, and who had come, after the manner of their kind, to scoff at the anticipated failure of a scheme which, according to their conceited and contracted notions, would never have been thought of by anybody but some visionary "crank" as him whom, among themselves, they were accustomed to call "Crazy Rumsey."

A little way apart, on a rocky knoll near the cliff, and beneath the sheltering branches of a clump of cedars which formed a natural canopy of evergreens above them, was a group of ladies and gentlemen whose names, being identified with the occasion, may properly be mentioned here. The most conspicuous figure in the group was that of Horatio Gates, late major-general in the Continental Army, and at that time residing on his "Traveler's Rest" estate, five miles from Shepherdstown. He was of medium height and full habit, with a florid complexion, which indicated a fondness for the material things of this world.

By the side of General Gates, and in marked contrast as to face and form, was Major Henry Bedinger, a tall, slender man, of saturnine complexion, who was as straight as an Indian, and whose piercing black eyes were as bright as an eagle's. Near him were the Reverend Robert Stubbs and Captain Abram Shepherd, the former of whom was principal of the Classical Academy and rector of the Episcopal (or, as it was yet called, English) Church, of which Captain Shepherd was one of the wardens. The reverend gentleman was rosy-cheeked and plumpitudinous—his whole appearance proving that then, as now, the good people of Shepherdstown take excellent care of their parsons. Captain Shepherd was a thin-visaged little man, of prominent features, full of energy, a first-rate farmer, and an unfailing friend of the

church; traits which have been lineally transmitted to some of his descendants.

Then there was another Revolutionary officer near by — Colonel Joseph Swearingen, a tall, robust, soldierly-looking person, with a Roman nose which rather overshadowed the rest of his features. He was a kind-hearted gentleman, and greatly loved by the community in which he lived.

The next claiming attention was a stoutly built man of brusque address, who, though descended from one of the regicides of Charles the First, had very little of the cant of Puritanism in his composition. It was General Darke, who had been an officer in the old French war as well as in that of the Revolution, and who, subsequently, in the Indian war of 1791, distinguished himself at St. Clair's defeat.

Besides the foregoing, there was Philip Pendleton, a gentleman of fine figure, fair complexion, regular features and dignified bearing; John Kearsley, a magistrate and Presbyterian elder, who by virtue of his official position was not only severely correct in his morals, but likewise solemnly sedate in his manners; and Cato Moore, another magistrate, whom his friends called "King" Moore, a gentleman of genial disposition, commanding the respect and regard of the entire community. "The Three Morrows," brothers-in-law of Rumsey, of course were there; as likewise were John Mark, Thomas White, David Gray, Benoni Swearingen and prominent citizens, now forgotten.

Among the ladies in the group were Mrs. Abram Shepherd, Mrs. Rumsey and her sister-in-law, Mrs. Charles Morrow, Mrs. Mark (with her little daughter Ann, who afterward became Mrs. John Baker), and several others.

Rumsey had invited the above-mentioned ladies to take passage on his boat, but no gentlemen were permitted on board, except Charles Morrow and Dr. McMechen, the former of whom was to take the helm, and the latter to assist Rumsey in attending to the machinery. When, therefore, it was time to start, the ladies were escorted on board to seats provided for them abaft the boiler, which, with the rest of the machinery, occupied the forward part of the boat, "about two-thirds of its length from the stern." Just as she was about to be pushed off from the shore, little Ann Mark,

letting go her father's hand, ran down to the water's edge and begged to be allowed to go with her mother on the trip. "And I'm very glad I did it," said the old lady many years afterward to the writer, "for Mr. Rumsey lifted me in and I was one of those who went on the first steamboat that ever was seen."

When they had shoved the boat off a short distance from shore, Rumsey started her engine and she moved slowly out to the middle of the river, where, rounding to, in obedience to her helm, and with her prow pointing westward, she paused for a moment and then, by a sudden impulse, steamed off up the stream, against the current of the river amid the shouts of the excited multitude upon the shore.

"I was standing next to General Gates," said Major Bedinger in describing the scene to the writer, (he was very near-sighted, and watched the preparations for starting the boat with much interest through his eye-glasses). "When she moved out and he saw her going off up the river against the current by the force of steam alone, he took off his hat and exclaimed, 'My God, she moves!' Yes," added the venerable major, "and when she moved, the destiny of the world, too, moved that day."

The old gentleman was right, for it certainly received an accelerating impulse on that occasion; and it yet moves—*E pur si muove*, as Galileo said. Peter Fisher, speaking of the occasion, said that he and a number of other boys ran along the shore trying to keep up with the boat, but that before they had reached flat rock they were distanced in the race, and that he noticed "there was all the time a great bubbling up of the water behind her." Old Michael Fouke used to say, excitedly, "Why, sir, she could navigate through the Straits of Gibraltar;" and Captain Haines used to refer with pardonable pride to the fact of his having assisted *zat bonne homme*, Monsieur Rumsay in *ze construccione of his bateau a vapeur*, which he was wont to say he would never forget—*Je n' oublierai jamais—no sair, nevair—nevair!*

But to return to the boat itself, which we left steaming her way up the river. After going for half a mile or more above the town, to a point opposite to what is known as Swearingen's Spring, she rounded to and returned, going for

some little distance below town, beyond where the Shenandoah Valley Railroad bridge now spans the Potomac, "the people again raising a mighty shout as she passed by them." Thus she continued to go to and fro, up and down the river for about the space of two hours, in full view of many hundreds of spectators, and then steaming back to the ferry landing, her delighted passengers were put ashore, and Rumsey received the cordial congratulations of the assembled crowd.¹

Nearly fifty years after Rumsey's successful experiment the venerable Major Henry Bedinger wrote a letter to Peter H. Cookus, in which he gave an account of the exhibition of the steamboat:

Protumna, May 12, 1836.

Dear Sir:

Sundry causes beyond my control have prevented my compliance with the wishes of our friend, to furnish a statement of the application of steam in propelling vessels, by James Rumsey, of Shepherdstown, and which, with hundreds of others, I personally witnessed. One cause was, I had, some fifteen years since, made out, for a printer, then resident at Shepherdstown, (or Harper's Ferry) a statement of exhibitions made at Shepherdstown, in the presence of hundreds of spectators, which was published; another cause, my recollections, as to dates of past events, are much impaired by great age and consequent infirmities; yet, if I could in any way serve the heirs, the descendants of James Rumsey, it would give me infinite pleasure. I knew him well, admired his talents, his genius, and enterprise, and would willingly contribute to the erection of a snug little monument very lately proposed and contemplated to be erected to James Rumsey, at Shepherdstown, as the inventor of steam navigation, now adopted in every country of this globe.

James Rumsey, after having been a considerable time the superintendent and head manager of the Potomac Com-

¹ Norris, *A History of the Lower Shenandoah Valley*, pp. 410-415.

pany's works, in clearing that river of impediments to boat navigation, retired to his family in Shepherdstown, where he conceived the idea of applying steam to navigable purposes. He first communicated these ideas to his brother-in-law, Captain Charles Morrow, of that place. Rumsey was poor; had a helpless family; had no wealthy friend or connexion from whom he could receive assistance. Under all these discouraging circumstances, he commenced experiments on a small scale; prevailed on another brother-in-law, Joseph Barnes, who was also indigent, to assist him in making such of the machinery as he was able by the direction and assistance of Rumsey. They made, fashioned, and prepared every thing they stood in need of. Nobody would assist Rumsey, as it was believed he was building castles—that all his schemes were visionary. Rumsey thus spent more than a year in making machinery, and in experiments, in a small log shop, locked in from observation. At length, he and Barnes built a boat of considerable size, which was calculated to carry about 100 barrels of flour; enlarged their boiler and machinery; launched their boat at the ferry landing at Shepherdstown; placed therein the boiler and other machinery, together with about nine tons of stone; gave public notice that on a certain day the exhibition should be publicly made of propelling the boat with its burden against the stream of the river, by the application of steam, from the ferry landing. Numerous persons from the country, as well as men, women, and children from the town, attended; the bank of the river was crowded by spectators. Captain Charles Morrow was placed at the helm, and James Rumsey attended to the boiler and machinery. No gentlemen were permitted to go into the boat, though six or seven ladies were prevailed on to take seats in her. After some delay, while all eyes were fixed on the boat, she started, and proceeded up the river at the rate of about three miles the hour; ran up to the mouth of Colonel Swearingen's spring run, then took a circuit and returned to the ferry landing, in the midst of cheers and huzzas by the crowd. I recollect that, when the boat first commenced moving, I was standing within a foot of General Horatio Gates, then our neighbor; he was near-sighted, but had intently watched the boat by



The Potomac at Shepherdstown

the help of his glass. The general turned to me and said, "She goes — by —, she goes!" He appeared in ecstasies; the boat having run up the river about half a mile, and returned. And after the tumultuous joy of the crowd had somewhat abated, a well-written but short certificate was produced, stating the action of the boat, with the assertion that James Rumsey was the projector and inventor of the application of steam to boat navigation. General Horatio Gates first placed his signature to this certificate, by request; after which, followed the names and signatures of all the prominent characters then present.

James Rumsey, as above stated, was poor; was anxious to establish his right to the invention. He attended the Virginia Legislature, the succeeding session, with that view, as well as of obtaining aid to complete and carry into full execution his invention; but after attending at Richmond a considerable part of the winter, he was compelled to return without success. Many persons still believed him a castle builder, and his schemes visionary. After several other fruitless attempts, (though I believe the Legislature of Virginia passed some resolutions in his favor as the inventor) he proceeded to London, where he soon found gentlemen of capital to patronize him. A company was formed there, and reasonable advances made for experiments and to accomplish his object. The company or society, as is usual in such cases, required of him, it is said, at stated times, reports and explanations. At one of those meetings, in presence of the society, when in the height of his explanation, he fell on the floor and died in a few minutes thereafter. Thus died James Rumsey, in the midst of hope of success, of years of study and perseverance; and his family and descendants have remained unrewarded, and in poverty, although the world of mankind have availed themselves of his inventions, and profited by them.

It is said, and believed here, that Mr. Fulton, by some means, possessed himself of the experiments and inventions of James Rumsey; and after his death claimed and received the honors and profits of the invaluable experiments and inventions of James Rumsey. Of one thing I am sure, that the name of Fulton, as the inventor of the application of steam

to propelling ships or boats, was never heard of while James Rumsey was making his experiments at Shepherdstown. Further, to corroborate this, a certain Mr. Fitch, the author of "Fitch's Map of the Lakes," appeared in Shepherdstown, incog., with the hope, as he confessed, of catching some insight of Rumsey's experiments; he was discovered, and escaped without personal injury. I am confident James Rumsey was the inventor of applying steam to purposes of navigation; am ready to appeal to all yet living who saw his boat and observed its progress at the exhibition at the time herein before stated. I have thus given you a detail of facts in a desultory and unconnected form; of which you, and your friend in Baltimore, will, I hope, be able to make something, and contribute, in some small degree, to the assistance of Rumsey's descendants.

Very respectfully, I am your most obedient servant,

HENRY BEDINGER.

Mr. Peter H. Cookus.²

Dr. Ashton Alexander of Baltimore, a former school-mate of Dr. Edward Rumsey, wrote to James Johnson:

Baltimore, November 30, 1835.

Dear Sir: I have a very perfect recollection of Mr. James Rumsey, and his first attempt to stem the waters of the Potomac with his steamboat, which took place in the autumn of 1786 or 1787. I resided in Shepherdstown in the years 1786 and 1787, under the charge of the Rev. Mr. Stubbs, who taught a grammar school in that beautiful village.

Mr. Rumsey had a brother in the school, who, at a later period than usual, commenced the study of the Latin and Greek languages, preparatory to his studying medicine. This circumstance led to an intimacy in the family of Mr. James Rumsey, and when the experiment was made I was invited to be in the boat.

The boat was propelled against the current of the Poto-

² *Report No. 403, House of Representatives, 29th, Congress, 1st Session*, pp. 13, 14. Cf. Major Bedinger's letter to Mr. G. Fleming, January 4, 1826, Dandridge, *Historic Shepherdstown*, pp. 269-272.

mac at the rate of four or five miles an hour; and the impression upon the minds of all in the boat was, that Mr. Rumsey had accomplished all his wishes. His own exultation left no doubt upon the minds of all that he had accomplished all his expectations; and I understood, some time after, that he had gone to Europe, expecting to reap a golden harvest from the discovery. I have often mentioned the above facts, and as often expressed the opinion that Mr. Rumsey was entitled to all the merits of the invention.

I am, sir, very respectfully, yours,

ASHTON ALEXANDER.

To James Johnson, Esq.³

A second exhibition of the steamboat, on December eleventh, was even more successful than the first. A communication from one of the spectators on this occasion appeared in *The Virginia Gazette and Winchester Advertiser* of January 11, 1788:

To the Printers of the Winchester Advertiser, &c.,
Gentlemen,

Please to insert the following extract of a letter from a person who saw Mr. Rumsey's exhibition, and oblige

Your humble servant,

A SUBSCRIBER.

On the eleventh day of this month Mr. Rumsey's Steam Boat, with more than half her loading (which was upwards of three ton) and a number of people on board, made a progress of four miles in one hour against the current of Potowmac river, by the force of steam, without any external application whatsoever, impeded by a machine that will not cost more than twenty guineas for a ten-ton boat, and that will not consume more than four bushels of coal, or the equivalent of wood, in twelve hours. It is thought that if some pipes of the machine had not been ruptured by the freezing of water, which had been left in them a night or

³ Report No. 324, House of Representatives, 27th Congress, 2nd Session, p. 8.

two before, and which ruptures were only secured by rags tied round them, that the boat's way would have been at the rate of seven or eight miles in an hour. As this invention is easily applied to boats or ships of all dimensions, to smooth, shallow and rapid rivers, or the deepest and roughest seas, freightage of all kinds will be reduced to one-third of its present expense.

Mr. Rumsey has a machine (which I likewise have seen) by which he raises water for grist or saw mills, watering of meadows, or purposes of agriculture, cheaper than races can be dug, or dams made, and the water, after performing its operation, to be returned again into its first reservoir. He has likewise made such improvements upon the structure of mills as to work grist mills with one-third of the water now expended, and saw mills with one-twentieth, and yet increase their powers without fearing the innumerable accidents attendant on the cumbersome parade of rounds, logs and wheels, which he has totally laid aside, and equally simplifies and cheapens the buildings; but I shall say no more, as Mr. Rumsey is preparing to publish the principles upon which his boat acts, when the public's curiosity will be satisfied.

December 16 1787

I am, etc, etc.

For the purpose of establishing his claims to the success of his invention, Rumsey obtained certificates from the leading gentlemen who saw his experiment.

One was signed by Abraham Shepherd, William Brice, David Gray, Charles Morrow, John Morrow, Henry Bedinger, and Thomas White; another by Robert Stubbs, and a third by General Horatio Gates, whose certificate reads:

On Monday, December 3, 1787, I was requested to see an experiment on Potowmack river made by Mr. James Rumsey's Steam Boat, and had no small pleasure to see her get on her way, with near half her burthen on board, and move against the current at the rate of three miles per hour, by the force of steam, without any external application whatever. I am well informed, and verily believe, that the machine at present is very imperfect, and by no means capable of performing what it would do if completed I have not the least doubt

but it may be brought into common and beneficial use, and be of advantage to all navigations, as the machine is simple, light and cheap, and will be exceeding durable, and does not occupy a space in the boat of more than four feet by two and a half.⁴

HORATIO GATES.

Late Major General in the Continental Army⁴

On January 12, 1797, General Gates, then residing at Rose Hill, New York, wrote to his friend John Mark of Traveller's Rest: "I have frequently been asked lately what had become of the 'steam gondola' made by James Rumsey near Swearingen's Ferry. The proprietor of the Museum in New York is anxious to obtain some of its fixtures if they can be procured at a reasonable cost. We have had the evidence of our own eyes that Rumsey's idea of propelling boats by steam is not chimerical, and time will yet perfect his plan."

The following certificate tells of the success of the second trial of the boat:

Being requested to attend an experiment made by Mr. James Rumsey with his Steam Boat, on Potowmack river, on Tuesday the 11th of December, 1787, it was with great pleasure we saw her advance against the current, with about three tons on board, at the rate of four miles an hour, without an oar, or anything but the force of steam, either to generate or assist the motion — if the machinery had been in good order, we have reason to believe, she would have gone much faster; and as the machine is light and cheap, we are persuaded that it may be of great advantage in navigation.

MOSES HOGE
CORNEL WYNCOOP
JOHN MARK

BEN[O]NI SWEARINGEN
JOHN MORROW
JOS. SWEARINGEN

⁴ *A Plan, Wherein the Power of Steam is Fully Shewn*, p. 11.

N. B. We think the machinery does not weigh more than six or seven hundred weight, and is not included in the burthen mentioned above.⁵

Charles Morrow, Thomas White, Robert Stubbs, Abraham Shepherd, and Henry Bedinger also gave a certificate similar to that quoted above.⁶

One of the points of superiority of Rumsey's boat over that which Fitch was trying to put into operation was the lightness of the machinery and the small space it occupied. Henry Bedinger declared: "As I have seen both Mr. Fitch's and Mr. Rumsey's boats, with the machinery, or at least as much thereof as could be observed, by a common examination, I presume that Mr. Rumsey's plan is much the more light and eligible, simple and practicable. Mr. Fitch's machinery appears bulky, weighty, and complicated, leaving little room in the boat in which I saw it, for loading. The weight of the whole apparatus I suppose to be five tons, whereas the whole of Mr. Rumsey's machinery, at the time of exhibiting publicly, with every apparatus complete, could not weigh more than five hundred pounds."⁷

William Askew of Berkeley County, while in Philadelphia in September, 1787, also saw Fitch's boat and talked with "a gentleman, who appeared to be concerned in the said machine" [Henry Voight, Fitch's partner].

From his own observations and from information received from Voight, he was of the opinion that the machinery of Fitch's boat would "on its present construction, weigh seven tons, exclusive of the quantity of wood necessary for the boiler," and "that the boiler would hold five hundred gallons of water." Rumsey's Steam machinery, he believed, would not weigh more than eight hundred pounds,

⁵ *A Plan, Wherein the Power of Steam is Fully Shewn*, p. 13.

⁶ *Ibid.*, pp. 13-14.

⁷ *Ibid.*, p. 15.

and could "be worked with a very inconsiderable quantity of wood or coals, perhaps not more coals in twelve hours than four bushels;" and the boiler "need have no more water, at one time, than one pint, or perhaps not so much, to keep the machinery in sufficient motion to stem the stream of the river, sufficiently fast to be safe with a cargo of goods."⁸ Askew estimated the cost of the machinery of Fitch's boat at three hundred pounds and that of Rumsey's boat at about twenty pounds.

In his *Short Treatise on the Application of Steam*, published in May, 1788, the inventor expresses his natural gratification in his achievement:

My machine, with all its misfortunes upon its head, is abundantly sufficient to prove my position, which was that a boat might be so constructed as to be propelled through the water at the rate of ten miles an hour, by the force of steam, and that the machinery employed for that purpose might be so simple and cheap as to reduce the price of freight at least one half in common navigation; likewise that it might be forced by the same machinery, with considerable velocity, against the constant stream of long and rapid river. Such machinery, I promised to prepare, and such a boat to exhibit: this I have now so far performed in the presence of so many witnesses, and to the satisfaction of so many disinterested gentlemen, as to convince the unprejudiced, and to deprive even the skeptic of his doubts, &c.⁹

In *A Plan wherein the Power of Steam is Fully Shewn*, published less than a month after the public trial of his boat, Rumsey thus explained the principles of his boat and expressed his confidence in the success of his inventions:

In the bottom of the boat, where a keelson should be, there is a trunk 36 feet long; the after end is open, and ter-

⁸ *A Plan, Wherein the Power of Steam is Fully Shewn*, p. 14.

⁹ Document 189, House of Representatives, 27th Congress, 2nd Session, pp. 3-4.

minates at the stern post; the other end is closed, and the whole trunk, according to its dimensions, occupies about three-fourth parts of the length of the boat. On the closed end of this trunk stands a cylinder, two and a half feet long, from this cylinder there is a communication into the trunk, which lets water pass freely from the cylinder to the trunk, through which it is discharged by the stern. There is another communication from the bottom of the cylinder, by a tube or pipe, to the river or water under the boat; on the top of this tube, and within the cylinder, there is a valve to admit the water from the river into the cylinder; it likewise prevents it from returning again the same way. On the top of this cylinder there stands another of the same length, and is fixed to the under one by screws; each of these cylinders have a piston made tight, which work up and down with very little friction; these pistons are connected with each other by a smooth bolt, (they being well screwed to its ends) passing through the bottom of the upper cylinder; the lower cylinder acts as a pump, which draws water from the river through the tube and valve before described; the return of the piston forces it through the trunk before mentioned, and out near the stern of the boat. The upper cylinder acts as a steam-engine, and receives its steam from a boiler under its piston, which piston is then carried up to the top of the cylinder by the steam; at the same time, the piston of the lower cylinder is brought up to its top, from its connection with the upper piston, by the aforesaid bolt; at which time they put up the communication from the boiler, and open another to discharge the steam for condensation; by this means the atmosphere acts upon the piston of the upper cylinder, and its force is conveyed to the piston in the lower cylinder, by the aforesaid connecting bolt; which forces the water, then in the lower cylinder, through the trunk, with considerable velocity; the re-action whereof, on the other end of the trunk, is the power which drives the boat forward.

To prove the use of the Trunk

It is well known that any heavy body falling near the earth, will pass through a space of about fifteen feet in the first second of time; if the same body was acted upon in a

horizontal direction, by an impulse equal to its weight, it would move in that direction the same difference in an equal time; it follows then, that the water in the trunk, will have the effect proportionable to its weight, of retarding the water from being discharged from the cylinder in too short a time; to prevent the water, which after the stroke, moves rapidly out of the trunk, from retarding the forward motion of the boat, by its velocity.

There is a valve near the cylinder, on the top of the trunk, to admit air, which follows the water that is in motion, and gives time for the water to rise gradually into the trunk through valves, at its bottom, for that purpose; this water has little or no motion with respect to the boat, and is therefore capable of resisting the next stroke of the engine.

Thus I have laid the principles of my boat before the public, and can assure them, by the wonderfull force of steam, issuing in incredible quantities, from an entirely new constructed boiler, no doubt remains, but all the advantages which I have before-mentioned, both with respect to navigation and the raising of water, will be produced. The one I have actually proved, by a loaded boat being propeled against a stream with the velocity of four miles in an hour, in the presence and to the great satisfaction of numerous spectators, and the other by models now ready to be produced, which admit not of contradiction.

If the public think these inventions, which must be productive of the greatest usefulness, worthy their patronage, I cannot fear but an exclusive right will be granted me by the different Assemblies of the United States, for a given number of years, which they shall think right, for the erecting these machines of my own invention, to compensate me for the trouble, for the time, for the expence and for the fatigue which they have cost me.

If a committee of experimental philosophers should be appointed in each state, to examine me, it would give me infinite pleasure to attend, and convince them of the practicability of all I have proposed; of the simplicity of my machines, and of the smallness of their expence.¹⁰

¹⁰ *A Plan, Wherein the Power of Steam is Fully Shewn*, pp. 7-9.

Chapter VI

CONTROVERSIES GREAT AND SMALL

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CONTROVERSIES GREAT AND SMALL

"Uneasy lies the head that wears a crown," says Shakespeare, and one might add "or carries a novel idea," for the way of the inventor, like that of the transgressor, is always hard. Comparatively few persons realize that since any great invention represents not one man's thought but the result of many men's thinking through many generations, it is impossible to know who first conceived the idea of employing steam as a means of navigation.

As the years went by the disadvantages of transportation by means of row-boats or sail-boats became more and more evident, and men's minds turned to solving the problem of finding a more convenient and efficient means of transportation.

When there is great need of a new and easy way to do a thing that has become too great a burden for the human race to continue doing in the old and difficult way, a thought current begins to pass through the minds of men—feeble, vague, elusive, for many years. But,

Thro' the ages one increasing purpose runs,
And the thoughts of men are widen'd with the process
of the suns;

and finally men are able to express in tangible form what has before been only thought, and we have an invention.

Unfortunately there are thieves who steal men's ideas as well as those who steal men's money; and because of this deplorable fact an inventor often has added to his burdens the charge of dishonesty and deception. Moreover, he is in advance of the times in which he lives; he must therefore bear the scoffs of the multitude, who know not what they do when they crown him with the thorns of ridicule. Emerson says, "To be great is to be misunderstood." If to be misunderstood were to be great, then every inventor would have a place in the hall of fame.

Rumsey knew every inch of the difficult road over which an inventor must pass, when he wrote:

Those who have had the good fortune to discover a new machine, or to make any material improvements on such as have been already discovered, must lay their account to encounter innumerable difficulties; they must arm themselves with patience to abide disappointments; to correct a thousand imperfections (which the trying hand of experience alone can point out) to endure the smarting shafts of wit, and, what is perhaps more intolerable than all the rest put together (on the least failure of any experiment) to bear up against the heavy abuse and bitter scoffs of ill-natured ignorance. These never fail to represent the undertaker as an imposter, and his motives the most knavish: Happy for him if he escape with so gentle an appellative as that of a madman.

This is the fate of the unlucky projector, even in the cities of Europe, where every material is at his command, and every artificer at his service. A candid public will then consider my situation, thrown by hard fate beyond the mountains, and deprived of every advantage which, that grand mover, money, produces, they will easily perceive how my difficulties have been multiplied, which is the only reason of my not exhibiting my long promised BOAT before this; and which I hope will be a sufficient apology. Even now, these difficulties render my machinery very incomplete; but to Mr. Fitch's endeavoring to procure patents for his boat, by uncun-

didly representing, to the different Assemblies, that my boat had nothing to do with steam, although he had been informed that I was before him, both in the idea and the application of steam, and he had actually procured an exclusive right from two respectable Assemblies, who had granted me the same in the year 1784, before I was aware what he was about such treatment obliged me, circumstanced as I was, to make an experiment, in order to secure to myself my own discovery, by shewing my principles, as Mr. Fitch's conduct gave me reason to fear that he would adopt my plan, as soon as he found his abortive. . . .¹

The success of the public trials of Rumsey's boat on December 3 and 11, 1787, by no means brought a solution of his difficulties, as we see in his letter to Washington:

Annapolis, Dec. 17th 1787

Sir.

Inclosed you have Coppies of two Certificates of what the Boat performed at Sum tryals we have been making I have a number more but as they are the same in Substance I thought it not necessary to Coppy them, we were under many Disadvantages and Should not have Come forth publicly untill Spring if it had not been for Mr. Fitches Stealing a march on me in Virginia I have Sent Down a number of certificates to the asembly of the first Days performance the Second was not then made I also inclose you a Contrast Drew by Capt. Bedinger Between Mr. Fitches Boat and mine. I met with governor Johnson here. He toald me of a Letter he wrote you, respecting Sum Conversation that Him and me had about my applying Steam to work the Boat as well as I remember it happened in Octr 1785, when I Informed him of my Intention of applying Steam and Spoke to him for to Cast Cillinders for me, he Said that from what Little he Could gather on the Subject he Suposed it quite another kind of a machine I toald him that the modle which I Showed to you was, he then Said he thought I had used you [*illegible*] I toald him that I believed not for that I had informed you of my In-

¹ *A Short Treatise on the Application of Steam*, pp. 3-4.

tention to try steam. I can Recollect no more that was said upon that Subject But it seems that governor Johnson has taken Up a Rong Idea of the matter and Supposed that I had Informed you of my Intention to apply Steam at the time I obtained your certifiacte nor Did I know untill now that he vewed my Information in that Light, nor did I ever Conceive that I had gave you any information Respecting it, only that I had Such a thing in Idea untill the Letter that I wrote you on the 10th of march 1785, nor did I before near about that time Reduce it To any form Suficiently promising to Determine me to make the tryal I was then Determined, as I wrote you as follows:

“I have taken the greatest pains to afect an other kind of Boat upon the principles I was mentioning to you at Richmond I have the pleasure to Inform you that I have brought it to great perfection it is true it will Cost Sume more than the other way but when done is more manageable and can be worked by as few hands the power is amense and I have quite canvinced myself that Boats of pasage may be made to go against the Current of Missippa or Ohio River or in the gulf Stream from the Leward to the Windward Islands, from Sixty to one hundred miles per day”—this was certainly an Information and was what I aluded to when I toald governor Johnson that I had Informed you of it, a Little farther on in the Same Letter is the following paragraff—“the plan I intend to persue is to build the Boat with both the powers on Board on a Large Scale”—as you Did not make any objection to the plann proposed when you wrote me an answer to the Letter I Considered myself at Liberty to go on upon the Steam plan Conected with the other nor did I Drop the Idea of Doing So untill Long after I had the Honor of Seeing you Last But not Being able to accomplish the Building of an Other Boat and finding by the Little Experiment I made that one Boat would not do alone I was at a great Loss to know how to act and if it had not Been on account of your Certificate I Would then nearly have Quit it, being under So many Embarrasments and nearly a new machine to be made before any thing Could be done as my new Constructed Boiler made Such hot Steam as to melt all the Soft Solder and news Coming frequently that Mr. Fitch would Soon come forth ad to

this that the Ice Carryed away my Boat and Broke thirty feet out of Her middle, a Large family to Suport no Buisness going on, in Debted, and what Little money I Could Rake together Expended, a gentleman has Since assisted me to whome I have mortgaged a few family negroes which must Soon go if I Do not Raise the money for him before Long. My present plan is So Simple Cheap and powerfull that I think it would be Rong to attempt the former plan, I would wish to Say Sumthing to the public about it, on your account but Doubt my own abilityes to give that Satisfaction I would wish. It has gave me much uneasyness Especially as I have By a train of unforeseen Events So often apered to you as a person acting Inconsistantly and I can Say in truth however unfortunate I have been in the attempt that my greatest ambetion is and has been to Deserve your Esteem—I intend to [go] to philadelphia Before my Return, and in January I will (if in my power) go to South Carolina and Georgia—your Letter to governor Johnson prevented Mr. Fitch from geting, an act here you have Sir my Sincerest thanks for the many favors you Conferred on me—I am your much Obliged Hbl Servt.—

James Rumsey.

P. S. the original papers from which These are Coppied was acknowledged before Magestretes and the County Seal afixed on them, which I Did not think nessesary to copy I am with great Esteem.—J. RUMSEY.²

In order to understand this letter to Washington, it is necessary to review the great contest that was on between Rumsey and Fitch.

Late in the spring of 1785, John Fitch, a native of Connecticut, announced that he had conceived the idea of propelling boats by steam and set about giving wide publicity to his boat scheme. On September 27, 1785, he presented to the American Philosophical Society a plan and

² *Washington Papers*, Library of Congress.

drawings of a boat which he purposed to propel by steam power. He later organized a company in order to secure funds with which to carry on his work. He wrote: "The Co. was formed on this plan, I divided it into 40 shares and reserved 20 shares to myself, the other 20 was to bear this expense, but did not engage in it until I had first engaged Mr. John Nancarrow to Superintend and give directions for the Steam Engine, as I never was Vain enough to suppose myself equal to that task . . . After I had the Co. formed, and nearly compleated, with Mr. Nancarrow engaged for our Engineer, I on the 17th day of April 1786 came to town with a design of compleating what I had so long pursued with such assiduity . . . I called on Mr. Nancarrow 30 Days successively, and could get no directions from him how I should proceed, finally gave me a plan I could not approve."³

Fitch then proposed to the Company that he should go to New York to obtain the assistance of Mr. Collins and Mr. Hornblower. But having in the meantime met Henry Voight, he entered into a partnership with him.

"Mr. Voight," says Fitch, "is a Plain Dutchman who fears no man. . . . I would depend on him more than a Franklin, Rittenhouse, and Eliote, a Nancarrow & Matlock all combined, as he is a man of superior mechanical abilities and very considerable Natural Philosophy and as we have many of the first geniuses in our Co. perhaps nearly equal to those whom I have mentioned it is certain that he has pointed out ways to remedy those defects, when Consternation sat silent in every breast for the disaster. I soon perceived his mechanical abilities to be much superior to mine. . . . Being thus provided with a partner, we began a Small Model of a one-Inch Cylinder which proved unsuc-

³ *Fitch Manuscripts*, "Steamboat History," pp. 22-23, Ridgway Library.

cessful, it being too small to overcome the friction, the expence was but trifling and cost about £3; we then began a 3 inch Cylinder, which we began in June, and finished sometime in August of the same year, which Model fully convinced us that a Steam Engine might be worked both ways as well as one, we about this time invented paddles to be worked by cranks."⁴

Fitch, who with Voight then set about making a boat "on a scale large enough for real use," writes of the difficulties with which he and his associates had to contend:

We got our works completed about the middle of May 1787, but fixing our Cylinder horizontal, we always had a leaky piston, of course we could not succeed. We had also wooden caps to our Cylinder, which admitted air, of course very injurious, when Mr. Voight and myself pointed out those defects to our Co. they generously advanced money to set them Right, which was to bring the works from the foundation and refitting them all again, a very tedious and expensive job, we also discovered that our Steam Valves were Very imperfect altho they was ingeneously contrived by my friend Mr. Voight and which every man of science would have approved until the defects were discovered by actual experiment, in lue of which he then invented a double Cock with the steam to pass and repass the Sd. Cock to the Condenser, and altho it is simple I esteem as one of the most ingenious inventions, after a tremendous expense and a great procrastination of time we got our works fixed with a perpendicular cylinder, but found them very defective in our Condensation, as we supposed, which really was the case, and notwithstanding that we had been at very great expense for condensors we were obliged to throw them away and to apply a pipe condensor, the product of Mr. Voight's teeming Brain. I might have observed that we had tried several before, which was not only tedious but expensive, without the desired effect, which tired out the patience

⁴ *Fitch Manuscripts*, "Steamboat History," pp. 41-42, Ridgway Library.

of my patrons, but when the pipe condensor was proposed, was prevailed upon to try that one experiment more — It answered the purpose exceedingly well, but produced a greater disaster, the engine worked so brisk that we could not find steam to supply it, consequently no alternative could be adopted than new alterations and new setting the Boiler which then would give us but half a supply of Steam, the Company having Run themselves to a vast expence, and discouraged by such a continued run of disaster, and I had long before exercised my greatest abilities to keep the Co. together. . . .⁵

The company being loathe to spend more money on the boat project, and Fitch, having exhausted every argument to persuade its members "to pursue the business further," prepared "a piece" to be published in the papers, in case he was compelled to give up his experiments. "I acknowledge," he wrote, "I was Vain in undertaking a business which I knew nothing about, that has taken near a Century to bring to perfection, I mean the Steam Engine, especially when it was applied to a different purpose from any heretofore in use, yet I doubt not but my phrensy in this will be forgiven, when every circumstance which Promoted it is duly weighed."⁶

Fitch showed the article that he had prepared to several of the company. "This," says the inventor, "had the desired effect, as the completion of my scheme at that time was first in my view and it served to put doubled ardour in the company, of course they paid their debts with cheerfulness, and ordered the necessary alterations made without delay."

He writes of further difficulties encountered:

. . . When we had got the alterations made, we found ourselves more imbarassed than ever, we found our

⁵ *Fitch Manuscripts*, "Steamboat History," pp. 24-25, Ridgway Library.

⁶ Westcott, *Life of John Fitch*, pp. 186-187.

Engine to work exceedingly well, and plenty of Steam, but not to go fast enough to answer any Valuable purpose on the Delaware, which threw me into the greatest consternation, we found that we must have a greater force than we had supposed, to carry it to answer the purpose of Stages on the Delaware, we were convinced that we had got the whole of our force from a 12 Inch Cylinder, and that the Cylinder must be enlarged, consequently the whole of our works, which was like beginning the whole works over, This Disaster could never have been overcome had it not been for the interference of Mr. Wills, Dr. Day, Mr. Stockton and some others, but after some deliberation on the Matter, it was resolved by the Co. that I should be ordered to procure an 18 Inch Cylinder instead of a 12 Inch, which we then had. . . . Sumtime in October 1787 we had got our patron made, and I set out to Warwick Furnace to procure a cylinder, on my Return the Company informed that there had been a man there from Virginia, who had informed them that Rumsey was building a Steam Boat but told so many unaccountable and contradictory stories, that he gained but little credit with our Company as to the truth of the main story itself, for my own part I could not credit it, but suspected him to be a man that wished to tell great storys, but could not get to see him myself, the person afterward appeared to be William Askew, as by his deposition in Rumsey's pamphlet. . . .⁷

Soon after conceiving the idea of steamboat navigation, Fitch had set about securing exclusive privileges in New Jersey, Delaware, Virginia, and other States. These grants would have made it impossible for Rumsey or any other inventor of a steamboat to profit by his invention as Fitch contended that he had the exclusive right to build vessels propelled by steam.

Arthur Donaldson, who had made some experiments on a model similar to Rumsey's, contested Fitch's right to

⁷ *Fitch Manuscripts*, "Steamboat History," pp. 47-48, Ridgway Library.

exclusive privileges, when he applied to the Assembly of Pennsylvania, but having been "convinced by his friends that no boiler, *then known*, would generate steam in a sufficient quantity, and at a cheap rate, to answer the end, he declined his opposition and a grant was made to Mr. Fitch, of the exclusive use of steam for navigation, in very large and comprehensive words."⁸

When Fitch applied for exclusive privileges in Maryland, Thomas Johnson, of the legislative committee to investigate the merits of Fitch's claims, knowing of Washington's interest in Rumsey, wrote to him to get a substantiation of the inventor's contention that he had conceived the idea of steam navigation before Fitch. Johnson of course knew that Rumsey had been experimenting with the principle of steam propulsion as early as 1785, because in the fall of that year the inventor had asked him to manufacture copper cylinders for the steamboat.

Johnson's having mistaken Rumsey's statement that he had confided his plans to Washington to mean that he had told Washington that steam was to be the motive power of his 1784 model explains Washington's first comment in the following extract from his reply:

. . . Mr. Rumsey has given you an uncandid account of his explanation to me of the principle on which his boat was to be propelled against stream. At the time he exhibited his model and obtained certificate, I have not reason to believe that the use of steam was contemplated by him, sure I am it was not mentioned; and equally certain I am, that it would not apply to the project he *then* had in view; the first communication of which was made to me in September, 1784 (at the springs in Berkeley). The Novr. following, being in Richmond, I met Mr. Rumsey there, who was at that time

⁸ Barnes, *Remarks on Mr. John Fitch's Reply to Mr. James Rumsey's Pamphlet*, pp. 4-5.

applying to the Assembly for a exclusive Act. (He then spoke of the effect of steam and the conviction he was under of the usefulness of its application for inland navigation;) but I did not then conceive, nor have I done so at any moment since, that it was suggested as a part of his original plan, but rather as the ebullition of his genius.

It is proper, however, for me to add that some time *after this* Mr. Fitch called upon me on his way to Richmond and, explaining his scheme, wanted a letter from me, introductory of it to the Assembly of this State, the giving of which I declined; and went on to inform him, that tho' I was bound not to disclose the principles of Mr. Rumsey's discovery, I could venture to assure him that the thought of applying steam for the purpose he mentioned was not original, but had been mentioned to me by Mr. Rumsey — this I thought myself obliged to say, that whichever (if either) of them was the discoverer might derive the benefit of the invention. To the best of my recollection of what passed between Mr. Rumsey and me, the foregoing is an impartial recital.⁹

Fitch was greatly chagrined at Johnson's writing to Washington in regard to Rumsey's boat project, as Washington's reply prevented his securing an act in his favor in the Maryland Assembly. He said that Johnson was as anxious to please Washington as a spaniel his master.¹⁰

Less than a month after successful public trials of his boat at Shepherdstown, Rumsey published a pamphlet entitled *A Plan wherein the Power of Steam is Fully Shewn By a New Constructed Machine for propelling Boats or Vessels of any Burthen against the most rapid streams or rivers with great Velocity*, in which he gave evidence of the success of his invention, as demonstrated by private trials in 1786 and 1787, and public trials in December, 1787.

He refers in his first pamphlet to a minor controversy

⁹ *George Washington Letter Book*, Library of Congress.

¹⁰ *Fitch Manuscripts*, "Steamboat History," Ridgway Library, p. 13.

with one Engelhart Cruse, who spent several weeks in Shepherdstown in the spring of 1787, and a short time later applied for exclusive rights for a steam engine. Rumsey considers Cruse as one whose "wickedness is without paralell," and who "through shews of religion gained so much of my confidence and secret, he soon removed himself to Baltimore where he caused a machine to be made on the out work of my principles (though very imperfect, for he was not entrusted with some of the most material parts) which he exhibited to view, and had the audacity to petition the Maryland assembly to give him an exclusive right for the emoluments of another's invention, so surreptitiously obtained; but he received the denial he so justly merited."¹¹

Cruse replied in a spirited pamphlet entitled *The Projector Detected*, in which he indignantly denied any indebtedness to Rumsey and said that Rumsey acted as if he had "a patent or authority throughout America to do what he pleased and could oblige everybody else to stand and look on till he had done stupidly poking with his Steam Boat. This project had employed him three or four years already, and it is more than probable it will find him work for many years longer."¹²

Cruse declared that Rumsey invited him to his home and that there he showed him a book of Monsieur Desaguliers, in which was a draft of a steam engine.

"You then asked me into your shop," he continued, "which was an *open old stable* that appeared to me incapable of securing any secrets. . . . The principal thing I saw in your grand shop was your cylinder . . . as much might be learnt from the sight of a stove pipe. The chief

¹¹ *A Plan, Wherein the Power of Steam is Fully Shewn*, pp. 6-7.

¹² Cruse, *The Projector Detected*, p. 3.

For the Am. Phil. Soc. Philad.
N^o 5 *N. 5*

P L A N,

Wherein the power of STEAM is fully shewn, by a new constructed Machine, for propeling Boats or Vessels, of any burthen, against the most rapid streams or rivers, with great velocity. Also, a MACHINE, constructed on similar philosophical principles; by which water may be raised for Grist or Saw-Mills, watering of Meadows, &c. &c.

By JAMES RUMSEY,
Of Berkly County, Virginia.

To the PUBLIC.

THOSE who have had the good fortune to discover new machines or to make any material improvements on such as have been already discovered; must lay their account to encounter innumerable difficulties; they must arm themselves with patience to abide disappointments; to correct a thousand imperfections (which the trying hand of experience alone can point out) to endure the smarting shafts of wit, and what is perhaps more intolerable than all the rest put together (on the least failure of any experiments) to bear up against the heavy abuse and bitter scoffs of ill-natured ignorance. These never fail to represent the undertaker as an impostor; and his motives the most knavish: Happy for him if he escape with so gentle an appellative as that of a madman.

A

This

The First Page of "A Plan, Wherein the Power of Steam
is Fully Shewn"

conversation we had was about the pressure of the atmosphere, the cause of winds, snow, etc."¹³

In May, 1788, Rumsey published *A Short Treatise on the Application of Steam*, in the advertisement of which he says:

No. 19 is added to this publication; it is a part of a letter wrote to his excellency General Washington, dated the tenth of March, 1785, which will shew the editor had fixed on a method of applying steam to propel a boat before Mr. Fitch knew (from his own account of the matter) that steam had ever been made use of for any purpose whatever: how then is it possible he should have any prior right to the discovery? If it is asked who made the most promising experiment? it would be found that my experiments two years since exceed the best he has ever made, must I then be deprived of my discoveries, which are substantial, because I endeavored to keep them secret until perfected? justice will never suffer it, I therefore look up to my countrymen for their support, according to the merits of my cause.

Fitch issued a reply to Rumsey's pamphlet in which he sought to prove that he, and not Rumsey, was the inventor of the steamboat.¹⁴ Having accomplished but little himself, in spite of his untiring efforts, he could say little of his own achievement but sought in every way to discredit Rumsey and his invention. He failed, however, to produce letters or certificates giving the date of any of the alleged trials made by his boat prior to Rumsey's successful public trials in December, 1787. Nor did he give the length of any trip made by his boat, the rate of speed at which it traveled, or any other definite information. The certificates of Ewing and Rittenhouse, dated December 12, 1787, were worded in the most general and noncommittal terms.¹⁵ It was not

¹³ Cruse, *The Projector Detected*, pp. 5-6.

¹⁴ *The Original Steamboat Supported*, p. 31.

¹⁵ *Ibid.*, p. 31.

until 1790 that they certified that Fitch's boat went six miles an hour without wind or tide, or, in other words, in *still water*.

The twenty-second of August has been given by Westcott as the date on which Dr. Johnson and other members of the Constitutional convention took a trip on the new boat, and the following letter of Johnson's is used to support this contention:

Dr. Johnson presents his Compliments [to] Mr. Fitch & assures him that the Exhibition yesterday gave the Gentn. present much satisfaction. He himself, & he doubts not the other Gentlemen, will always be happy to give him every Countenance & encouragement in their Power, which his Ingenuity & Industry entitles him to.

Thursy. Afternoon

23d Augt. (1787)¹⁶

Fitch's letter, which is dated August the twenty-first, and to which Dr. Johnson's letter seems to be a reply, makes no mention of a voyage in the steamboat, and thus far has been withheld from publication:

Honoured Sir.

Gratitude compells me to return you my sincere thanks for the Honor you did me yesterday in calling to see my works as the Countenance of such exalted Characters must give energy to any undertaking I Humbly beg leave thro' yourself to return my thanks to the Honorable Gentlemen that accompanied you and pray the further Countenance and patronage of yourself and those worthy Gentlemen in bringing to perfection so great an undertaking as I have now on hand. Pardon me Sir. for saying no more than that I am

Your most Devoted

and Very Humble Servant

JOHN FITCH.

To Doctr Johnson¹⁷

¹⁶ *Fitch Papers*, Library of Congress.

¹⁷ *Ibid*.

Calling to see Fitch's works is quite a different matter from taking a trip in his boat.

This extract from a letter, written by Fitch to Governor Randolph on the fifth of September, also indicates that Dr. Johnson and his associates did not take a trip on the steamboat on the twenty-second of August:

If it would not be too grate a condensation, we should be happy of your Excellency's company and that of the Honorable Members of the Convention to make a short Voyage we expect she will be ready the beginning of next week, but your Excellency shall know the exact time if agreeable.¹⁸

Fitch also wrote of his boat, : "There was a very few of the Convention but called to see it, and do not know whether I may except any but General Washington, the reason why he omitted it I do not pretend to say."

One great defect of Fitch's boat was the size and weight of its engine. Realizing that his boat would serve no useful purpose, he decided to build a larger one, but no real progress was made for over six months. In the meantime Rumsey had made two successful public trials of his boat, at the second of which it had attained a speed of four miles an hour.

The only direct statement that we have in regard to the rate at which Fitch's boat traveled in 1787 is found in his letter to Governor Randolph in which he says that his boat attained the speed of two miles an hour against the strongest current of the Delaware.¹⁹ He wrote to Dr. Madison February 10, 1788: "I really am, sir, no more than a man and it is as difficult for one to effect the impossible as for another and cannot compleat what I have begun without

¹⁸ *Fitch Papers*, Library of Congress.

¹⁹ *Ibid.*

supplies. I have since I began been Idle more than six months waiting for the casting of the Cylinder."²⁰

In March, Rumsey, having exhausted all his financial resources, decided to go to Philadelphia to try to enlist the interest of well known scientists there in his enterprise.

He wrote to Washington on the day before his departure:

Sheperdstown March 25th 1788

Dr. General.

With this you will Receive five pamphlets Respecting My Boat and other plans, the Subject is not handled Quite to my Wish as I was Obligated to get a person to Correct my Coppy. In Doing which my Ideas in Several places were new modled, but not So much as to injure the truth, I wished to Introduce, But has made Sum things Rather Obscure.

I hope Sir, that the nessesity there was of Such an Explanation being made to the public, will plead my Excuse for Taking the Liberty of Introducing your name into my Concerns, and Shall Do my best Endeavors to Conduct myself In Such a mannor as in Sum Degree to Deserve the Honor it Does me, you may Rest ashored that all that I have proposed is within my power to perform, I have proven them all Experimentilly, and have modles by me Sufisantly Large to Convince any Compitant Judge (that may Examon them) of the truth thereof—

Tomorrow morning, I throw myself upon the wide world In pursuit of my plans, being no longer Able to proceed upon my Own foundations, I Shall bend my Course for Philadelphia where I hope to have it in my power to Convince a Franklin and a Rittenhouse of their utility by actual Experiment, as Mr. Barnes is to Set out in about ten Days after me with all the Machinery in a waggon and halt at Baltimore until I write him from philadelphia what Encouragement we may Expect there if none we will push Immediately for South Carolina.

²⁰ *Fitch Papers*, Library of Congress.

Know all Men by these presents, that I James Rumsey
 County in the Commonwealth of Virginia, having full confidence
 ability and integrity of my well beloved Friend Charles Morrow
 County, ~~and~~ And having various important and consequent
 Affairs, I therefore by these presents Doth Nominate, constitute and
 appoint, and be it hereby known to all Men that he the said Charles Morrow
 is hereby Nominated constituted and appointed, my true and lawful
 Attorney in fact — And by these I do fully empower and invest him with
 all and every former, present or subsequently power or powers that I have had,
 now have, or might have, to all intents and purposes, and do surrogate and
 substitute my said Attorney Charles Morrow, for me and in my name, and
 for my behalf, to Ask, Demand, Sue, for implead and recover all Debts or Debt
 Causa or Causes, Interest or Interests which before, now or after is, may or shall
 become liable, payable and due to me, To the same Acquittances of other due
 charges to grant and give, to compound and settle for the same as my said
 Attorney shall deem proper — Also granting by these presents to Charles
 Morrow my said Attorney full power and absolute Authority by these presents
 to Grant, Bargain sell and convey in his own or my name for my benefit
 all my Estates or Estate whether real or personal, Release and other
 on payment therefore to give and discharge for the which I here
 oblige myself my Heirs Executors and Administrators — As well as all the
 other Transactions or Transactions, Business, or Businesses which my said
 Attorney shall lawfully do or cause to be done in or about the whole or
 part of the Premises, here by binding myself, my Heirs or Administrators
 and entirely to every part and parts of this power of Attorney, and that
 my said Attorney has and shall have full power and authority to appoint
 one or more Attorneys under him to act as aforesaid, the same at any time to
 revoke, and in general to do and perform every thing relative or concerning
 the Premises as fully in every respect, as I myself could or might do were I
 personally present — In Witness whereof I have hereunto set my Hand and
 Seal this tenth day of March, One thousand Seven hundred and Eighty eight
 Sealed and delivered
 in the presence of }
 Christian Lopez

James Rumsey Esq

Reproduced from original document by the courtesy of Miss Helen B. Pendleton.

Power of Attorney Granted to Charles Morrow by James Rumsey

There is no period in my life that Could give me more Satisfaction than to have it in my power to Stop the mouths of the Envious few (I might add Ignorant) that has taken the Liberty to cast Reflections on the gentlemen that was so kind enough To give me Certificates; one of this Discription would have got Roughly handled by the gentlemen of this place if he had not made a Very timely escape. I must Say that I am under great Obligations to the gentlemen of this County. on hearing my Intentions to travel, a number of them Vollerarily furnished me with Letters to gentlemen of their acquaintances in Different States, and ten of the magistrates has given me a Recommendation that would Do Honor to a much worthyer person, I mention this Sir because I Conceive I am Indebted to you for a great part of the Zeal they have Shown upon this Occation, and Should be ungreatfull if I Did not feel the weight of the great obligations I am under To you—you Shall hear from me if I meet with any Occurance that I Conceive is worthy of your attention—I am Sir with Every Sentiment of Esteem & Regard your much Obliged and Very

Hbl. Servt.

JAMES RUMSEY.

P. S. Just as I was Sealing this Letter I received a notice from the Directors of the potomach Company that a motion would be made to Recover 26 pounds Sterling of me already called for, I have Mr. Hartshornes Receipt for five Dollars and the Boat, the Valuation of which when passed to be applied to pay two ten pound Dividends, for Winecoop One for me and the Ballance to my Credit, with Hartshorne and Co. as I finished the Boat their Valuation, was then £57., 12., 0 Virginia money as I owed Mr. Hartshorne & Co., but about £5 there is nearly as much coming to me. As will Discharge the third & forth Dividends It is out of my power to pay the 5th Dividend. In time must therefore abide by the Consequences. I have Mr. Stuarts Receipt for the Boat, which Mr. Hartshorne has seen I shall have a statement of the hole forwarded to the Directors as Soon as posable, I am &c

JAS. RUMSEY.²¹

²¹ *George Washington Papers, Library of Congress.*

Rumsey took with him a draft of his newly invented boiler which he very incautiously exhibited to a number of persons. Much to his chagrin, he found when he presented it to the Philosophical Society, that Henry Voight, Fitch's assistant, had also presented drafts of a boiler similar in principle to his.

In the minutes of the society for April 18, 1788, we find that:

James Rumsey of Virginia sent by letter drawings and descriptions of

1. An improved Boiler for a Steam-engine.
2. An improvement in Dr. Barker's Grist Mill,
3. An improvement in the Saw-mill,
4. An improvement in Raising Water by means of a steam engine.

Henry Voight communicated by letter drawings and descriptions of various improvements in boilers for generating steam.

The committee on inventions reported at the next meeting that Rumsey's and Voight's principle of increasing the steam generating surface and diminishing the quantity of water exposed to the action of the fire appeared just, but the best application must be a matter of experiment, and that Rumsey's other inventions were ingenious in theory and well deserved a full trial.

It must be remembered that at the time Voight presented his draft of a boiler for the approval of the American Philosophical Society, James Rumsey had made at least two successful trials on the Potomac with his "new invented boiler."

Rumsey succeeded in interesting a number of the leading men of Philadelphia in his project; among them, Dr. Franklin, and on May the ninth the Rumseyan Society was formed. The purposes of the organization are thus set forth

His Carol ^y Ben ^y Franklin	One Share
General Arthur Sinclair	One ditto
Rev ^d G ^{eo} Duffield	One ditto
William Bingham Esq ^r	One ditto
Benjamin Hambrook Esq ^r	20 ditto
Rev ^d Sam ^l McGaw	One ditto
Myers Fisher Esq ^r	One ditto
William Barton Esq ^r	One ditto
M ^r Love Hollingsworth	two ditto
M ^r John Wilson	One ditto
M ^r John Jones	One ditto
M ^r James Trenchard	Four ditto
M ^r Joseph James	two ditto
Mess ^{rs} Reed & Ford	One ditto
M ^r Sam ^l Wheeler	two ditto
M ^r Richard Adams	One ditto
Rev ^d Burgess Allison	One ditto
Charles Vancommer	one ditto
Mess ^{rs} Fisher (for Robert Barclay)	one share
Charles Vancommer	one share

List of Members of the Rumseyan Society,

May 15, 1788

in a communication addressed to the Speakers of the House of Delegates and the Senate of Virginia by a committee composed of Mires Fisher, Benjamin Wyncoop, and Levi Hollingsworth:

"James Rumsey an ingenious Gentleman a Native of Maryland but lately from Virginia in December last exhibited before a number of respectable Characters in Maryland & Virginia the Effects of Steam in Propelling a Boat of Considerable Burthen against the Current of the River Powtomack, and Models of Machines for the raising Water to a great Height and in Large Quantities by the force of Steam, in both which a Boiler upon an entirely new Construction invented by himself is used with the greatest apparent probability of far exceeding all others heretofore known, not only in point of force but in the Smallness of the Quantity of Fuel, necessary to generate the Steam—He came to this City a few Months ago with Drafts and Descriptions of his several Inventions and Communicated them to a Number of Gentlemen here who struck with the simplicity of his several Contrivances, and the great Advantages with which they might be applied to many useful Purposes agreed to afford him Some Assistance in carrying his Schemes into Execution—To this end the Persons a List of whose Names is herewith sent, Formed themselves into a Company by the Name of the *Rumseian Society*, and appointed us a Committee of Correspondence to Further the Design in Distant places—As Steam Engines are now used in Europe not only for the Purpose of raising Water from Mines of great Depth but for a great Variety of other Mechanical purposes where a strong Force is necessary and Water Falls were formerly applied—We therefore thought it advisable that James Rumsey should immediately go thither to secure to himself any advantages which might result from an Invention of so extensive Usefulness, in that Country and he accordingly sailed in the Month of May in a Vessel bound for London. . . .²²

²²*McMechen vs. Rumsey Papers*, Virginia State Library.

Rumsey wrote to Washington of his experiences in Philadelphia:

Philadelphia May 15th 1788

"Dr. General

When I Last had the honor of writing to you I was about Setting out on a Very uncertain Expedition. I Came to this place with an Intention of establishing my prior Right to the Invention of the Steamboat and have met with great Opposition from Mr. Fitches Company who seem to Stop at Nothing to Carry their point by advice of Several friends we attempted an Negotiation of the matter and I was met Several Times by Deputyes from his Company in The Course of which I offered to make an Equal join of the matter With them Which They Refused, when all negotiations Ceased.

I laid the Draft of Several Mechines before the philosophical Society Expecting thereby to Secure Such Inventions to myself. Among these Drafts was my new Invented Boiler for Generating Steam, my papers was In possession of his Excellency Doctor Franklin Several Days before the Day of Meeting But on that Day three other Drafts Was handed in of Boilers on the Same principles of mine but Varied a Little in form. Two of these was a Mr. Voights a partner of Mr. Fitches, the other by a person of Inflence a teacher in the College. I found Who it was by axedent, Inclosed you have the Report of a Committee of the philosophical Society on the above mentioned Meshines, also The proposials of a plan I published to form a Company and the names of the persons that has Subscribed to it, when this was known Mr. Fitch's party Immediately Sent a Draft of the Boiler to Urope, with Letters and Instructions to apply for a pattent for it, the gentlemen That formed my Company was Roused at Such Treatment and at the next meeting after the first formation of it, they Subscribed 1000 Dollars more for the Express purpose of Sending me to Urope and I am to Set of in the morning, Doctor Franklin and a number of Gentl. write Letters by me to their friends in Europe. If you think Sir that you Could with propriety mention me in a Line the first opertunity to the Marquis La Fayette Mr. Jefferson or any other Gentlemen that you may think proper the favor Should always be Greatfully Remembered. Benjamin Vaughan Esqr.

PROPOSALS

For forming a Company, to enable

JAMES RUMSEY

TO CARRY INTO EXECUTION, ON A LARGE AND EXTENSIVE PLAN, HIS

STEAM-BOAT

And sundry other Machines herein after mentioned.

Whereas JAMES RUMSEY, of Berkeley county, in the state of Virginia, has been several years employed, with unremitting attention and at a great expence, in bringing to perfection the following machines and engines, namely, one for propelling boats on the water, by the power of steam; which has already been accomplished in experiments, on a boat of about six tons burthen; another machine, constructed on similar principles, for raising water at a small expence, to be applied to the working of mills of different kinds, as well as to various useful purposes in agriculture; and also others, by means of which, grist and saw-mills may be so improved in their construction, by a very cheap and simple mechanism, as to require the application of much less water than is necessary in the common mode: And whereas the expenditures that the said James Rumsey has necessarily incurred in the prosecution of these important discoveries, and in endeavouring to bring the machines and engines which he has so invented to perfection, have rendered him incapable, without assistance, to carry his said plans fully into effect: Therefore, he, the said James Rumsey, hereby doth, by the advice of sundry gentlemen of reputation, propose to form a company on the following plan, to enable him to complete and carry into execution his aforesaid inventions; being anxious to evince the great utility, which he is confident, will result to his country therefrom: For this purpose, he proposes.

1st. To reserve, subject to his own disposal, one moiety or half part of the interest, and property, in his said discoveries and machines.

2nd. That the other moiety of the interest and property in the same, be divided into fifty equal shares, to be disposed of to such gentlemen as may choose to encourage so laudable and beneficial an undertaking.—The purchasers to pay at the time of subscribing, twenty Spanish milled dollars, for each share, into the hands of the said James Rumsey, or of the trustees hereafter to be appointed, who will be authorized by him to receive subscriptions.

3d. The said James Rumsey, hereby engages to convey to the said

Trustees, for the use and benefit of the company, Lands, of considerable value, as a security for the faithful appropriation of the monies so to be subscribed; which monies shall be applied to the immediate purposes of perfecting the before mentioned machines, and obtaining grants from the legislatures of the several states, vesting in the said James Rumsey, his executors administrators and assigns, an exclusive right to, and interest in the said discoveries and machines, for a certain term of years. 72

4th. The said James Rumsey farther engages, that, at the expiration of one year from the date hereof (at which time he expects to have his machines completed) he will convey to each subscriber, his executors, administrators, or assigns, the share or shares by them respectively subscribed for, on his or their paying the said James Rumsey the additional sum of forty Spanish milled dollars, on each share so subscribed. And that, should any subscriber, or his legal representative, then wish to relinquish his share or shares, the money advanced by him for the same, shall be refunded to him. But should it so happen, that all, or a great number of the subscribers, or their representatives, should not be desirous of retaining their respective shares, and that the said James Rumsey should thereby, be disabled from refunding to them, out of the fund arising from the original subscriptions, the sum of twenty dollars advanced for each share; in that case he agrees that the lands, so as aforesaid to be conveyed in trust, shall be sold by the trustees aforesaid, for the express purpose of reimbursing the monies, advanced by those persons so declining to retain their shares; the surplus to be refunded to the said James Rumsey or his representatives.

5th. That those persons who may think proper to pay the additional sum of forty dollars for each share, and thereby be invested with a complete proprietorship in the concern, shall form themselves into a company, which shall hold their meetings at such times and places as may be by them agreed upon, for the purpose of promoting the interest of the proprietors, and for directing the mode, in which the business of the company shall, from time to time be conducted. That at all such meetings of the company, each proprietor shall be entitled to one vote for every share he shall possess, to the number of five (inclusive) and one vote for every five additional shares. That the said James Rumsey, so long as he shall continue a proprietor of one moiety (equivalent to fifty shares) or of a lesser number, shall be entitled to a proportionable number of votes, with the other proprietors; and that every person who may purchase from the said James Rumsey a share or shares (each of which shall be one equal fiftieth part of his the said James Rumsey's proprietorship, hereby reserved) shall have the same right of voting as other proprietors.

That, so soon as twenty shares shall be subscribed for, the subscribers shall meet, in order to appoint trustees, for the purposes before specified: and that when the company shall be completely organized, every person entitled to give a vote in person, shall also, in case of absence, have a right to vote by proxy.

IN WITNESS of the premises, We the Subscribers have hereunto set our Names, this first day

May 1788.

Proposals for Forming Rumsey's Steamboat Company

Jeffreys Square and Mr. Robert Barclay Thrales Brewery Southwark London are to be two of my Confidential Friends — . . .

Doctr. Franklin is to name one or two more In his Letters which I have not got yet but am to Call on him in the Evening for them —

I am Sir with every Sentiment of Esteem your much obliged Hbl. Servt.

JAMES RUMSEY.

P S If Mr. Hartshorne would give me Credit for the Boat and Sum other Small accounts that Lye with him It would nearly pay what was Collect for by the Company before I Came from Home.²³

To Charles Morrow he wrote in the highest of spirits as he was about to set out on the great adventure, which he believed to be the great opportunity for the realization of his dreams:

philadelphia May 14th 1788

Dr Charles

In two hours time I shall be on board A Ship bound for London with a bill for two hundred pounds Sterling in my pocket and the best Letters that Philadelphia Can aford me Doctor Franklin is now writing Letters for me and many others has wrote, at a meeting of Our Company on the 9th of May They proposed this plan and Did me the honor of Calling the Company The Rumseian Society. On the 13th Inst, was the second Meeting when my going was Determind upon and the Gentlemen in Consequence of it very generously Consented to Cansel my proposials So far as they were binding on me, and has Since procurred the bills as an adedional Venture and are to Suport Joseph Barnes in the per-suit here on the Continant, I have Impowered you the Doctr. and him to act in my place while I am gone. This Charles is my Meridian if I do not Do sumthing now I am Done. It is Certain my prospects is flattering as these gentlemen that

²³ *George Washington Papers, Library of Congress.*

patronise me are Conspicuous Characters. We Chose our officers in form a Gentl Mr. William bingum esqr was Chose president Mires Fisher Esqr Vice president Mr. Joseph James Secretary and Bengaman Wynekoop Esqr, treasurer. I En-close you a Report of the Committee of the Society. I beg Sir that you will Leave no Stone unturned to Detect fitch in his Villianey you shall have one of his pamphlets Sent you as Soon as they Come out you Can then judge what Sort of proofs is wanten and Can forward them to Our Secretary & Committee of Correspondence which I had nearly forgot to mention Wm. Bartan Esqr is one of them anr Mr. Levi Hollingsworth is another Bengaman Wynkoop Esqr acts as another the fourth I forgot write to any of them you think proper but Mr. Wynkoop is the most active he has been propelled with great velocity through the streets for Several Days by the force of Steam alone.

Charles take [care] of my Child and of all the Little Business I Left with you I Can make no promises but I think I Shall not go to Europe for nothing If I do not you Shall be Remembered if Mr. Pages and Mr. Fitzhughs houses Can be Done by anymeans It will save me sum charactor Remember me to poly tel her I Sincerely wish her all happyness and tell my Child to be good garl and Remind her that it is in part for her I toil Keep neddy with the Doctr if posable or Sum other school I shall Endeavor to have him Sum Clothing got against winter and if nothing Else Can be Done Send him here to Joseph Barnes I have Laid a train for him to finish his Studies but it will be Expensive and therefore must be the Last Shift Except; my cir [cumstan] ces mend Remember Me to Dady [torn] and Charles, and to all my old friends and Neighbors²⁴

Since, after Rumsey's departure for England, the controversy with Fitch was carried on by either Joseph Barnes or representatives of the Rumseyan Society, it seems best to conclude the discussion of this subject, before taking up the most interesting period of Rumsey's life—the years spent abroad.

²⁴ *McMechen vs. Rumsey Papers*, Virginia State Library.

Evidence of the methods resorted to by Fitch and his associates in carrying on this controversy is found in this letter written by Charles Morrow to Washington, on June 13, 1788:

Mr. James Rumsey who has now sailed for England under favour & with Testimonials from a Respectable Company of Citizens of Philadelphia of whom Govr. Franklin was one has had sundrie attacks made on his Character by a Mr. Fitch & Co. and the more effectually to rival and traduce him in his absence have confidently Reported in the City of Philadela. that Mr. Rumsey left the Service of the President & Directors of the Potomack River Company in *Disgrace*. This is the single point that Sundrie Gentlemen of this place [Shepherdstown] with myself, would pray your Excellency to determine, either in a letter to Govr. Franklin or in any other way you may think proper. . . .²⁵
Sir,

In reply, Washington wrote to Morrow:

Sir,
Your letter of the 13th instant from Shepherdstown came duly to hand In answer to the question you have propounded to me, consequent you add of a report "that Mr. Rumsey left the service of the Potomack Company in disgrace" I answer the fact is otherwise; and that his quitting superintendency of the Companies concerns was an act of his own acquiesced in, at his desire by the P. & Directors.—

I am Sir

Yr. Very Humble Servant

GO. WASHINGTON.

Mount Vernon
June 25th 1788²⁶

In July, 1788, Joseph Barnes, Rumsey's representative, published a reply to Fitch's pamphlet in which he presented further evidence that Rumsey had his steam engine and

²⁵ *George Washington Papers*, Library of Congress.

²⁶ *Washington Letter Book*, Library of Congress.

other machinery on his boat as early as 1785, and had made several trials with his boat, prior to 1787.

He commented thus concerning Fitch's "false reasoning:"

Mr. Fitch, when he finds himself hard pressed on the subject of priority, says such a claim is entirely useless, as others "projected it before him [*sic*], and if bare projections were sufficient to build a claim on, I have no doubt but there are people now in their graves, whose heirs may set up more easily claims than either of us."

On the contrary, when it is proved that Mr. Rumsey has succeeded earliest in the business, he then says it is shifting the ground . . . or lastly, he entrenches himself behind what he with *great propriety* terms "my laws," which were obtained, not because he was the first man who thought of steam in its application to nautical purposes, nor because he first accomplished so desirable an object, but as being the first person who applied to different legislatures in order to obtain an exclusive right to his own immature ideas, or an exclusive right to exercise the faculties of the human mind so far as they relate to steamboats.²⁷

One of the provisions of the Virginia Act was that Fitch would forfeit his rights if he did not produce *steamboats* on the waters of Virginia within three years from the time of the grant. The year 1789 found him very apprehensive lest he should forfeit this right.

In a communication to the Steamboat Company at their yearly meeting on the first Monday in January, 1789, Fitch says: "I am of opinion that the Steam Boat Promises as much now as ever it did, and am willing to Resque one year more on the success of it, but on the following terms would I engage in it. As I am conscious that my abilities are unadequate to the Task. I propose that Mr.

²⁷ Remarks on Mr. John Fitch's Reply to Mr. James Rumsey, pp. 7-8.

Hall be sent for and consulted on the Occation and that he may be employed to excute the work."²⁸

Since in his experiments with steam navigation in 1788 and 1789 Fitch's boats had never exceeded three miles an hour,²⁹ he became greatly discouraged.

"Our Present Boat cannot be put to any Profitable use," he writes, ". . . then the Grand question is what shall we do to pay ourselves for our expense and trouble. To make the necessary alterations in this is out of the question for first our Boat is too weak built. 2nd our Cylinder is too small. 3rd our fire must be better applied to the Boiler, and better secured from endangering the Boat these alterations will require new Cocks and new Tubes, Which in fact would be taking the work almost from the foundation."³⁰

Fitch's ill luck with his boat caused him to lose faith in his method of propulsion and to favor the jet propulsion method of Rumsey.

" . . . But in a particular manner," he writes, "I pray that the boat may be tried by forcing out a Column of Water abaft. I am now fully of the opinion that it will be the best manner of Propelling a Boat, and much the most desirable way, and unless we do it this fall, we shall have it taken from us."³¹

To Dr. Johnson he wrote:

And since they have moved their Boat about 150 yards and obtained such scandalous certificates for the same the whole of their employ seems to have been to exult in what they have done, to tell what they can do to gain improve-

²⁸ *Fitch Papers*, Library of Congress.

²⁹ Thornton, *Origin of Steamboats*, p. 3.

³⁰ *Fitch Papers*, Library of Congress.

³¹ *Ibid.*

ments at our expense and throw all the embarrassments they can in our way, whilst we have had to wade through the heavy expense and toil of so great an undertaking and the great delays which they have already caused makes our Law precarious in Virginia, as we are bound by that law to have Boats in 3 years on their waters.³²

Fitch's trials with his boat had been very disappointing to him. Moreover, the cloud of witnesses from Shepherdstown and Frederick that he had predicted would corroborate his assertion that Rumsey did not have his steamboat machinery before 1786 had failed to materialize. Therefore, the latter part of April, 1789, he set out, probably under an assumed name, on a secret mission to Shepherdstown, "where," as he sarcastically said, "Rumsey did his mighty feat." Here he attempted without success to secure information that would discredit Rumsey's achievement. It is significant that Engelhart Cruse had given him the names of persons whom he should interview. Barnes accused him of examining Rumsey's boat, which lay bottom up in a mill pond, that he might learn something of jet propulsion as a means of navigation—a subject in which he was very much interested at this time. But be that as it may, Fitch's secret interviews and investigations came to an untimely end. Captain Charles Morrow, hearing of the suspicious stranger who was a guest at Wyncoop's inn, went to see Fitch, who, when he learned the name of his caller, said to him, "Mr. Morrow, I have no private discourse to hold with you, and walked into the Barr Room." . . . "As soon as I got into the Barr Room," says Fitch, "he began to abuse me in words exceedingly, and altho I believe that I made him cool determined and many replys, he found that my temper could not be ruffled to excess, I also found that

³² *Fitch Papers*, Library of Congress.

had I been a Goliath and he a Child, he could have abused me in that place what he pleased and from the evidence he could produce, would oblige me to pay all costs of court, finally concluded that it was best for me to retire, when he saw I was about leaving the room, he crossed his hands as if preparing for Boxing, and run his right hand with his fingers extended into my face, which hit me on the Chin, when without saying much more I turned and went out, crossed the river into Maryland and returned to Sharpsburg that night four Miles, not knowing but he might have an inclination to follow me stayed there till between 8 and 9 oClock the next morning."³³

After Fitch, who realized, like Falstaff that "The better part of valour is discretion," had retreated to Sharpsburg, he wrote Morrow a bold letter³⁴ assuring him that if he would call upon him when he came to Philadelphia he would give his assailant every satisfaction that he required.

On his return trip to Philadelphia, Fitch stopped at a crude sort of inn not far from Sharpsburg. Here he happened to fall in with a number of men who had heard of his visit to Shepherdstown. As Fitch approached the house, he thought he heard someone say, "There he is." Fearing that they might attack him, he, on entering the house, "requested leave to lay myself on the Bead." In writing of this incident later, he said that he thought "the greatest Ruffin could not attack a tired man lying on the Bead." He tried to conciliate the men by ordering whiskey for everyone, but "thought that none drank with good grace." Crampton, "a stout portly looking man," who was a deputy sheriff of Washington County, Maryland, "totally refused to drink" with him. When supper was ready Fitch refused to eat,

³³ *Fitch Manuscripts*, "Steamboat History," pp. 91-92.

³⁴ *Ibid.*, pp. 92-93.

"not thinking it safe to rise." Crampton, however, "took a large Potato out of the dish and, with all his seeming strength," hit him on the breast. The inventor considered his assailant "as fit a companion to Charles Morrow as could be found." Before leaving, Crampton declared his intention to return for a morning dram with his companions. Fitch took the hint and, therefore, rose early the next morning, paid his bill and announced in a loud voice that he was going to Sharpsburg for some papers, and would return at nine or ten o'clock.⁸⁵

When he was out of sight of the house he changed his course and made a detour by which he "walked fifteen miles to go three" and then made a bee-line for Philadelphia.

One of Fitch's objectives on this trip was to secure information about the distance traveled by Rumsey's boat. He sought to use the fact that it traveled up the Potomac a comparatively short distance as evidence that it was not capable of making a longer trip. The boat made the trip to Swearingen's Spring, about half a mile from the starting point, returned, and then continued to and fro "up and down the river for about the space of two hours" in full view of the spectators. It would indeed have been a foolish proceeding on the part of Rumsey, had he, after having invited the public to come to Shepherdstown to see him try his boat, steamed up the river, around Horseshoe Bend out of sight of the hundreds who had assembled to see the performance of the "flying boat."

Fitch and his adherents have sought to use the fact that after Rumsey had made two trips in his boat, he abandoned it. Rumsey's resources were completely exhausted and he was, therefore, unable to make further improvements in his machinery which, as he himself declared, was

⁸⁵ *Fitch Manuscripts*, "Steamboat History," p. 94.

imperfect. Moreover, little work could have been done during the winter of 1787-88. He left Shepherdstown in March, never to return.

The inconsistent Fitch asserted that he had a right to propel boats by steam according to any and every means of propulsion; but he tried to discredit Rumsey by seeking to prove that the latter did not employ jet propulsion as a means of propelling his boat until 1787, but used other methods prior to that time.

It was well known that Rumsey experimented with other methods of steam navigation than that of jet propulsion. Therefore, granting that the affidavits secured from Eremere, Stewart, Harris and others are reliable, they do not in any way discredit Rumsey's achievement.

John Eremere declared in his affidavit³⁶ that he had assisted in putting Rumsey's machinery on board in the spring of 1786, at which time the boat had no trunk or double bottom. According to his account the machinery was "fearfully and wonderfully made:"

There was two long pipes of Copper about five feet and a half long and about six inches in diameter there was also a large boiler of copper put into sd. Boat with a large fan wheel made in this form with a spindle which run through both crosses at each end of sd. wheel there was also two other wheels somewhat like the flutter wheel of a sawmill put into sd. Boat and nearly as big with a great number of small wheels there was two different ways of working sd. Boat so Sd. Eremere understood for he heard Mr. Barnes say if one way would not do they would try the other. there was also two long pieces of Iron about 8 or 9 feet long.

According to a certificate secured by Fitch from Leonard Smith, Rumsey fixed his machinery on his boat on the

³⁶ *Fitch Papers*, Library of Congress.

Potomac opposite Smith's house, some time before he left the Potomac works in the summer of 1786. He had several methods of propelling his boat. Among the rest he tried his setting pole plan, and Smith steered the boat. He took in his boat up the river the machinery for steam which had previous to that been fixed to his boat and taken out at Smith's house.⁸⁷

Prior to Rumsey's departure for Europe, a petition was prepared which Joseph Barnes or representatives of the Rumseyan Society later presented to the legislatures of Virginia, New York, Pennsylvania, and the other States, where Fitch had secured "exclusive privileges." A portion of this petition is here given:

Petition of James Rumsey, of Berkeley County, in the State of Virginia.

Most respectfully sheweth that your petitioner has been for several years employed with unremitted attention and at great expense, in inventing and bringing to perfection sundry machines and engines, namely: one for propelling boats on the water by the power of steam, which has already been accomplished in experiments on a boat of about six tons burthen; another machine constructed on similar principles for raising water at a small expense, to be applied to the working of mills of different kinds as well as to various useful purposes in agriculture; two new invented boilers for generating steam, and also other machines, by means of which grist and saw-mills may be so improved in their construction by a very cheap and simple machine, as to require the application of much less water than is necessary in the common mode.

In Pennsylvania the petition was referred to a committee which reported that the petition of Rumsey ought to be granted except so far as it respected "the propelling of

⁸⁷ *Fitch Papers*, Library of Congress.

Boats by the force of fire or steam." An appeal was then made to the Virginia legislature to have the act in Fitch's favor repealed. The committee to which the appeal was referred reported that the act in favor of Fitch ought to be repealed, but the report was rejected by the House.

In 1789, John Stevens, who had become interested in Steam navigation through hearing of the experiments of Rumsey and Fitch, entered into the contest for exclusive privileges. In his *Apologia* Stevens says:

It was toward the year 1788 that my attention was drawn toward the improvement of the steam engine. Mr. Rumsey, Mr. Fitch, and others had made several attempts to apply the power of a steam engine to propelling a boat. But there was an obstacle which lay in the way, to remove which appeared to be indispensably necessary in order to render the project of any utility. This was the great weight and bulk of the boiler, when constructed in the usual manner. To effect this, Mr. Rumsey invented what he called his *pipe boiler*. As this invention was supposed to be a great improvement, and became a subject of general discussion, I was insensibly led to direct my thoughts upon this important subject.

On February 9, 1789, John Watts, a prominent member of the New York Legislature, presented a petition prepared by John Stevens asking for exclusive rights to navigate the rivers of New York with boats propelled by steam, according to a plan, which he declared to be different from that of either Rumsey or Fitch, except his raising the water through the bottom of the boat and forcing it out at the stern. The petition, draughts, and explanation of Stevens' boiler were presented to a committee that was considering the meries of the petitions of Rumsey and Fitch, which had previously been presented, and on February the twenty-fifth the grant was made to Rumsey.

In New Jersey and Delaware, bills were introduced to

give Rumsey exclusive rights but were laid upon the table until the next session.

The Rumseyan Society made another effort, in 1789, to have the Pennsylvania law in favor of Fitch set aside. The matter was referred to the Judges of the Supreme Court of the State, whose opinions were conflicting. Fitch was very much incensed at the Chief Justice, who implied that he secured the act in his favor through fraud.

In the meantime the Federal Constitution had been adopted and the new Congress had assembled in New York on the sixth of April, 1789. Almost immediately petitions from authors and inventors began to pour in, asking for exclusive rights. After the failure of his petition in New York, Stevens used his influence to have a patent law passed by Congress that in the future there might not be the "sort of wrangling that had arisen between Rumsey and Fitch." In April, 1790, Congress framed the first patent law of the United States, and Rumsey, Fitch, and Stevens applied for protection as soon as the law became effective.

In the petition of Fitch we read:

The impracticability of procuring experienced workmen in America, your petitioners total ignorance of the construction of the steam engine, together with the necessary deviation from the form described in the books in order to accommodate its weight and bulk to the narrow limits of a vessel, have caused him not only to expend about eight thousand dollars in successive experiments but nearly four years of his grants have expired before he has been able to bring his engine to such perfection as to be carried into use.³⁸

The first Monday in February was set for the hearing of those who had invented means of applying steam for

³⁸ *American State Papers, Miscellaneous*, Vol. I, p. 11.

THE public are hereby informed

that James Rumsey, Esquire, of Berkely county, in Virginia, has lately obtained from the States of Pennsylvania and New-York acts of Assembly, vesting in him the sole and exclusive right of making, using, and vending certain engines, machines and devices, by him invented or improved; and hath also petitioned Congress, and filed of record with the Secretary of the House of Representatives, plans and specifications of the said machines, in order to obtain a general patent for making, using, and vending the same throughout the United States, so soon as Congress shall pass any act for granting letters patent, or for securing to authors and inventors the right and privilege to their works and inventions:

A mill has lately been constructed for Mr. Joseph Few, near the Falls of Schuylkill, upon the principles of Mr. Rumsey's improvement of Dr. Baker's mill, (one of the machines included in the acts of assembly) by which it is clearly demonstrated that the advantage gained in the force of water is, in all cases, double to that of the best constructed over-shot wheels, and will be still greater in any other mode of applying water, particularly to low heads; that a great saving will be introduced in the construction of mills, both by their works being originally much more simple, their not being liable to injury from ice, much easier to be kept in repair, and in all probability, three or four times more durable than the machinery of common mills.

Mr. Rumsey's cylindric and pendulum saw mills, will still require much less water than the improvement of Dr. Baker's mill; and their construction is more simple and cheap than any other mode now in use: the power gained by these modes will apply equally well to tilt-hammers and all other works that require an alternate motion, whether perpendicular or horizontal.

All persons in the States of Pennsylvania and New-York, who are desirous of purchasing rights for constructing and using the above machines, or any others included in the aforesaid acts of Assembly, are requested to apply to the subscribers, who are duly authorised to dispose of such rights. The cylinders and some other machinery peculiar to these mills, will be prepared, if the purchasers think proper, under the direction of Mr. Joseph Barnes, attorney in fact to Mr. Rumsey, who will calculate the size of the said machinery for every given head of water: And in order the sooner to extend the use and benefit of these machines, particularly the mills, the privilege will be disposed of for a much less premium to such persons as may make application before the first day of January, next, than to those who may apply afterwards, when these machines shall be brought into more general use and demand: Mr. Barnes will, in the first instance, either superintend the fixing the machinery (where it can conveniently be done) in person, or he will instruct some skilful mechanic in the proper mode of executing it.

ew3M
September 30, 1789.

LEVI HOLLINGSWORTH,
BENJAMIN WYNKOOP,
JOSEPH BARNES.

From the Pennsylvania Gazette.

Advertisement of the Rumseyan Society

useful purposes. The hearing was postponed and two months later Remsen, Jefferson's secretary, sent a notice to the claimants to be ready for a hearing on the first Monday in April. Jefferson spent some time in considering the various specifications and in discussing the merits of the claims of the rival inventors as to originality and priority.

On May the fourth, Remsen wrote to Stevens:

The investigation of the claims of Rumsey and Fitch as to priority in the application of Steam to navigation which was to have been made by persons mutually appointed by them was attempted but not completed; and the Commissioners at a late meeting agreed to grant patents to them — and to all claimants of steam patents — according to their respective specification. . . . The Commissioners have required the descriptions, in every instance to be inserted in the patents from the claimants themselves They also require models and draughts of each invention, discovery, or improvement before the delivery of the patents.³⁹

On August 26, 1791, after a delay of nearly four months, the Board of Commissioners for the Promotion of Useful Arts issued to Rumsey, Fitch, and Stevens patents which were signed by Washington and the three members of the board, Jefferson, Knox, and Randolph.

Fitch later tried to form a partnership with Stevens for the building of horseboats, but was unsuccessful, because he could not convince Stevens of their practicability.

In writing of the ridicule occasioned by his attempts to propel vessels by steam Fitch says: "But since it is taken up by Franklin, Bingham, Fisher, Hollingsworth and Wincoop the world begins to look upon it more serious." All of the persons that he names were members of the Rumseyan Society and had he had the foresight to enter into a partner-

³⁹ Turnbull, *John Stevens, an American Record*, pp. 109-110.

ship with Rumsey, instead of wasting his time in a controversy with him, the powerful influence of Rumsey's friends and the combined inventive genius of the two men would no doubt have resulted in making a commercial success of the steamboat. Fitch's selfishness and the stupidity of the legislatures in granting him exclusive privileges for the navigation of boats by the force of fire and steam, thus making it impossible for other inventors to secure protection, no matter how superior their models might be, not only hampered Rumsey in his work by forcing him to go abroad to carry on his experiments but proved a great hindrance to Fitch himself by distracting his attention from his work, and in creating enemies, and, therefore, prepared the way for Robert Fulton's success with the Clermont twenty years later.

Although both Rumsey and Fitch have been dead for over a century and a quarter, and their boats have long since passed out of existence; although the age of steam itself is passing, the controversy started by the two inventors still lives and is carried on from time to time with great enthusiasm and, all too frequently, with little regard for facts.

The adherents of Rumsey have erred in the following contentions:

1. They contend that the model exhibited by Rumsey to Washington at Bath in September, 1784, and concerning which he secured Washington's certificate, was a model of a steamboat.

2. They assert that Fitch was detected peeping through the keyhole of Rumsey's workshop in an attempt to spy out his secrets.

3. They argue that Rumsey, in 1783, presented a petition to the legislature of Maryland in which steam was mentioned as the propelling power.

The facts are:

1. Rumsey in *A Plan, Wherein the Power of Steam is Fully Shewn* and Washington in a letter to Thomas Johnson, said that the 1784 model exhibited at Bath was not a model of a steamboat.

2. Rumsey did not accuse Fitch of trying to gain a knowledge of his experiments in steam propulsion by peeping through the keyhole of the door of his shop.

3. Rumsey presented his petition to the general assembly of Maryland in 1784, and at no time made the assertion that steam was mentioned as the motive power.

Some of the erroneous statements made in regard to Fitch are:

1. James Rumsey derived his idea of steam propulsion from Fitch.

2. Fitch successfully experimented with the model of a steamboat at Warminster in 1785.

3. He completed a one-inch cylinder model on April 17, 1786.

4. He experimented with a skiff propelled by a three-inch cylinder model July 27, 1786.

5. His boat attained a speed of six miles an hour in 1788.

6. Congress recognized Fitch as the inventor of the steamboat by an appropriation for the erection of a monument at his grave at Bardstown, Kentucky.

The facts are:

1. Rumsey confided his plan of steam propulsion of boats to Washington in November, 1784. Fitch conceived the idea of steam propulsion in April or May 1785. (His statements as to the time vary.)

2. According to Fitch's own account he was ignorant of the principles of the steam engine when he came to Philadelphia, April 17, 1786. He, therefore, could not have

made a successful experiment with a model of a steamboat at Warminster in 1785.

3. It is also obvious that he could not have completed a one-inch cylinder model on the day of his arrival in Philadelphia. Moreover, he wrote in his *Steamboat History* that he and Voight completed the one-inch cylinder model in May.

4. He could not have made a trial of a "skiff steamboat" in July 27, 1786, as, according to his own account, he had not then completed his three-inch cylinder model, begun "in June 1786 and finished sometime in August of the same year."

5. If his boat attained a speed of six miles an hour it was with the tide in its favor. The certificates show that the boat went twenty miles in three hours and ten minutes with a tide that set in "at the rate of two miles an hour." Dr. William Thornton, a member of Fitch's steamboat company and one of his most loyal and zealous supporters, wrote in his pamphlet on *The Origin of the Steamboat* that Fitch's boat did not attain a speed of over *three miles* an hour, until the spring of 1790, when it travelled one mile in an eighth of an hour in *dead water*.

6. In "an act making appropriations for the military and non-military activities of the War Department for the fiscal year ending June 30, 1926, and for other purposes" in the section headed "Quartermaster Corps, National Cemeteries" is this provision: "\$15,000 shall be expended by the Secretary of War, toward erecting a fitting marking of the grave of Lieutenant John Fitch, soldier and inventor."

It is obvious that Congress, in making an appropriation for marking the grave of Fitch through providing the War Department with funds for that purpose, did so in recognition of his part in the American Revolution, rather than for the service rendered by him as inventor. More-

over, there is a vast difference between designating Fitch as an *inventor* and as *inventor of the steamboat*.

The Rumsey-Fitch controversy is indeed a labyrinth and he who would travel through it should carry with him the lamps of research and fairness, lest he not only lose his own way but mislead others; for "the evil that men do" by making false and prejudiced statements "lives after them."

Chapter VII
THE YEARS ABROAD

Chapter VII

THE YEARS ABROAD

As coming events do not always cast their shadows before, it was with high hopes and great expectations that Rumsey set out on the great adventure that he believed would prove to be the flood tide in his affairs that would lead him to fame and fortune. He wrote to Morrow that he took with him the best letters that Philadelphia could afford him. Among these was one from the celebrated Dr. Benjamin Rush to his friend Dr. Lettsom, a distinguished physician of London, who said:

A certain Mr. Rumsey, of Virginia (strongly recommended by General Washington) lately produced a plan of a machine in our city for improving the steam engine, by reducing the fuel consumed by them to one-eighth of the usual quantity. This plan, it is suspected, has been copied with a few trifling variations by a person in this city (equally known for plagiarism in philosophy, and a licentious opposition to the proposed constitution of the United States) and transmitted to Mr. Boulton of London, with a view of obtaining a patent for it.

The only design of this letter is to request you to suggest the above information to Mr. Boulton, and to assure him that the proper vouchers will be sent to him by Captain West or Captain Sutton in a few weeks, which will prove that the sole honor of the invention belongs to Mr. Rumsey; he alone is entitled to it.¹

¹ Pettigrew, *Memoirs of the Life and Writings of the Late John Coakley Lettsom*, Vol. II, pp. 430-431.

Rumsey also took with him a letter from Benjamin Franklin to Vaughan, which proved of great service, for he became one of Mr. Rumsey's most loyal friends, helping him in every possible way with his money, his influence, and above all, his confidence in the ultimate success of the great invention.

Philadelphia. May 14, 1788

Dear Friend,

The Bearer, Mr. Rumsey, goes to England, with a View of making some Advantage to himself by an Invention which he thinks may be useful to others, viz. an Improvement of Boilers for Steam Engines, whereby 9/10ths of the Fuel may be saved; and the Machine applied with Convenience to the forcing Boats against the Stream of Rivers. He apprehends that another Mechanician of this Country is endeavoring to deprive him of such advantages by pretending a prior right to the Invention; and as he will be quite a stranger in England, and unacquainted with the Modes of proceeding in public affairs, I beg leave to recommend him to your friendly Counsels, which will much oblige.

B. Vaughan, Esq.

Yours affect.

B. Franklin

Mr. Rumsey is a Person of good Character and Reputation in this country.²

Shortly after his arrival in London, Rumsey sought to form a partnership with Boulton and Watt, inventors and manufacturers of steam engines. On July 14, 1788, they wrote to Handley:

Having made an agreement with Mr. James Rumsey an American gentleman who proposes to take out a patent for moving boats by steam engine we request that upon his application for the same you will withdraw the caveat we desired you to enter upon that subject. We have recommended Mr. R. to employ you in his patent. He sends his petition

² *Franklin Papers*, Library of Congress.

by this conveyance to Mr. Vaughan of St. Mary Ax who will wait upon you with the petition.³

It later developed, however, that one provision of the proposed partnership was that Rumsey should sever his connection with the Rumseyan Society. He, therefore, abandoned the plan, as he felt in honor bound to carry out his obligations to those who had made it possible for him to go abroad.

Fortunately, we have the inventor's own account of his attempt to interest Boulton and Watt in his enterprise, in a letter to William Bingham, president of the Rumseyan Society:

London August 3d 1788.

Dear Sir,

In my last letter of July the 2d by the New York packet I informed you of my having it in view, to wait on Messrs. Boulton and Watt at Birmingham, and by advice of Mr. Barclay and Mr. Vaughan, I went there on the 3d of July, where I remained near three weeks in which time we had many meetings and various were the proposals on both sides sometimes I had hopes of forming a connection with them on favorable terms, and so far were we agreed by the twelfth, that a petition was drawn up for me by Mr. Watt, wherein I prayed his Majesty for a patent for propelling vessels of all kinds by steam, and a Boiler on a new principle for Steam engines, expecting to gain both privileges with the expense of one patent.

To make way for this petition Messrs. B. & W. wrote to their attorney to withdraw a caveat, that they had entered for propelling boats by steam. Thus stood the business until the day, that I was to come away, when I was to have their proposals in writing. But when they produced their proposals, which I enclose you a copy of (see No. 1) they were so far from what I expected, from the conversation that passed on the subject before, that it really astonished

³ *Boulton and Watt Letter Book*, Birmingham (England) Public Libraries.

me, besides they went so far as to inform me, that they would have no connection with me while I was concerned in so large a company and proposed I should write to them to be off. I told them, I would rather give up the whole plan than to propose any thing the least dishonorable, or incompatible with the engagements, that I had entered into with gentlemen, who had given a friendly support to my enterprise.

They intimated that it could not be the least dishonorable, if your money was refunded, which they signified was at my service—I raised further difficulties by alledging that I could not make applications to other countries without the assistance of the gentlemen I was concerned with; they again intimated that, that deficiency might also be removed, and if I did not like to write to you on this subject, that Mr. Barclay they made no doubt would, by which means, I need not appear in the business. As I did not wish to break with those gentlemen abruptly, on account of the situation I was in, respecting their patent, and caveat, without consulting my friends in London, I therefore told them that as the proposition was new and unexpected I could not give them any answer to it, until I had a further consultation with my friends. Immediately on my arrival in London I waited on Mr. Barclay with their proposals, with which, he was much displeased, and desired me to let them know that he treated their propositions, as unworthy for them to offer and dishonorable for me to accept, and that he was surprised that they should mistake him so much as to expect he would write to his friends on such a subject. I have had several meetings with Mr. Barclay and Mr. Vaughan and have by their advice sent my proposals to Messrs. B. & W. with remarks on theirs, a copy of which is enclosed No 2. I don't expect they will be accepted of at present. If they are not the plan is to push forward the patent for the boiler and drop the boat scheme for the present, when the boiler is secured it is expected they will be glad to accept the terms proposed. Thus stands the matter now. No. 3. is what I drew up, before I waited on B. & W. at our last meeting, which was as near what I conceived we had agreed upon as I could dictate.

The premiums which they get for their improvement is 6 guineas per year for the strength of every horse, that the engines is equal to, I expected they would be satisfied with half the premium in England, and the fourth in other countries, which I would have given them as their interests & influence added to their furnishing the engines at so short a notice, would have put it in my power to have done great matters in Europe in a short time. Spain, France and Holland have been written to and answers received from the last two places with directions how to proceed to secure a patent in each place. Methods will be immediately taken to prevent others from interfering with me at those Courts, but it will be out of my power to attend personally without the society should think proper to advance me some fresh supplies of money for that purpose. From the best information I can get, the patent I am soliciting here, will cost me at least £130 St. .9—It is also thought proper that I should have a small boiler made, the cost of which and my expenses will make my finances very low, by the time the patent, etc. are obtained, especially as I intend to visit Cornwall & Lancashire, to see the steam engines, and Encouragement there is a probability of getting for the application of the boiler when the patent is obtained.

Mr. Vaughan is of opinion that a manufactory should be established in Ireland, as English workmen can be taken there, and Messrs. B. & W. cannot prevent any application of steam being made in that Country, as their patent does not extend there, and here it excludes all persons from making or vending any steam engines, possessing any of the properties of theirs. Messrs. B. & W. raised all the objections they could against my boiler every one of which, I removed and have left them without a single objection against it. I have improved the boiler to an amazing advantage. Mr. Vaughan is so pleased with it and so sure of its great success that he says that he will risk his philosophical character on it by drawing up a description of it with observations of the advantages it has over all other boilers yet extant. This explanation is sent me of which I send you a copy, No. 4. I have enclosed it to B. & W. It would have been impossible for any gentlemen to have been more friend-

ly than those to whom I have been recommended, or to have engaged themselves more heartily in my cause.

A Mr. Johnston (a brother of the governor) an inhabitant of this city has also rendered me essential services — I showed Mr. Fitch's pamphlet to Messrs. B. & W. and they on reading it pronounced him an ignorant person who knew little about the matter he was engaged in — They were quite displeased at the general claim he lays to all steam boats, and say he must be very badly informed about the customs of Europe to expect an exclusive privilege for any kind of machine, except one answering to such description or Model entered in a Public office, therefore according to the European custom he is entitled to nothing but his paddles, and perhaps not even to those as I heard he proposed wheels and buckets to the philosophical society. This scheme of expelling air through a trunk is truly ridiculous, & will once more give him a compleat defeat. The next thing, I suppose will be my trunk & valves. I have the honor to be yours, & the Rumseian Societies.

Much obliged friend
And Humbl. Servant,
JAMES RUMSEY.

William Bingham Esqr.
President of the Rumseian Society.⁴

Rumsey's letter to Boulton and Watt:

London augst. 6th 1788

Gentlemen.

The departure of a vessel for philadelphia, and the engagement of my friends without whose privity I wish to take no measure have Considerably delayed me in my answer to your Letter of July 22d. to Mr. Barclay.

The propositions which that letter contains may be Reduced to the following against each of which I shall take the liberty to Set my Remarks.

⁴ *Simon Gratz Autograph Collection*, Pennsylvania Historical Society Library. Published by permission of the librarian.

Remarks

Substance of Messrs. Bolton & Watts propositions.—

1st. you propose to give up your claim to the Method of propelling boats by Steam,

This can only Respect this Country, where in your opinion this invention will be of little use, except in a few particular places. In America and other Countries where it may be of use, you Cannot make the concession not having the Claim. —

2d. To Supply me with Steam Engines on the usual terms

This is evidently no favor though It is Coupled with the limitation under the next head. —

3d. To use no other than your Steam Engines for boats in any Country where I have a patent; which granted you will pay half the Expence of my English patent.

This is a great Return required for less than one hundred pounds purchas money.

4. To take out a partnership patent in America for the Engine and all their applications, you paying $\frac{2}{3}$ of the Expences and receiving $\frac{2}{3}$ of the premium or profit:

I claim no Share in the invention. of the double application of the power of Steam, above and below the piston; but I had myself independent of your Invention, thought of a separate Condensing Vessel; and the boiler is clearly my invention. This would therefore be to renounce all my own pretensions and to subject myself to your premiums in return for your paying $\frac{2}{3}$ of the Expence of the patent.

5. To be concerned in making or having made no Engines Except by you in America or any where.

This has been partly noticed under the third head of which It is an enlargement. It deprives me of all means of availing myself of future improvements, even of my own Except on your Terms; and of future reductions of price; and Consequently leaves me to be undermined by any rival.

I came to you as persons who are possessed of the English market, and flatter myself that I can improve your hold upon It; but I do not Expect that our agreement Should Operate to tie my hands in other places otherwise than as your work commands a preference, or than as we Can Separately agree for this object. I therefore beg on my Side to offer the following terms to be agreed upon Between us at present.

1st. to omit all mention of foreign parts.

2d. to allow me half of the profit and premiums on Engines applied in Great Britain to navigation.

3d. to allow me half of the Cost of an English and Scotch patent, and of my Voyage to and from Europe.

4. and when your are So far persuaded of the use of my boiler as to think of Employing it in your Engines, to treat upon the Subject of a Compensation To me for it; a subject which I am ready to Enter upon directly.

If the above terms are not worthy of your Attention I am advised to begin by taking out a patent for my boiler in Consequence of which I have directed Mr. Handley to do nothing In the business of the patent I petitioned for untill he hears further from me.

Mr. Barclay who knows more of the nature of my Engagement in America Speaks Still more Strongly against my doing anything that Shall be Contrary to them, than Mr. Vaughan does. In a letter which I have received from him,

dated the 2d. inst and which I take the liberty to inclose.

I am Gentlemen with great Regard
your most obt.

hbl. Servt.

JAMES RUMSEY.⁵

A few days after delivering his ultimatum to Boulton and Watt, Rumsey wrote to Benjamin Franklin:

Dear Sir,

London Augst. 10th 1788

I have to return you many thanks for your kind letter introducing me to Mr. Vaughan, It has raised me up a most Sincere and Able freind in that Gentleman, he has served me most essentially in many respects, especially in his good Council to me in letters while I was at Bermingham Endeavoring to form a conection with Messrs. Bolton & Watt, who has made me proposials that would have been Dishonourable of me to Except. These proposials, my answer to them, and a very philosophical letter from Mr. Vaughan to me, on the Subject of my boiler, which I enclosed to Bolton & Watt, (by Mr. Vaughan's Consent), I have forwarded to the Rumseian Society for their Consideration.

There is not a doubt but a large Sum of money might be made in this Country if I had the prevelige of Erecting Boats to go by Steam without Interfering with Messrs. Bolton & Watt's patent preveliges, Or could form a Conection with them on reasonable terms. My boiler I have improved much, and all the great philosophical Charectors that have seen the plan are of opinion that it must far Exceed any thing of the kind yet Extent. I have been very uneasy about the promis I made you, as my Journey to this Country So Sudent and unexpectedly, has put it out of my power to observe it it in that punktial mannon that I wish, and your freindship Commands; but if you can beleive me Sir, I Shall most Strictly Comply with it, at the Earlyest opertunity that it is in my power, Should any Calls be made upon you in my absence Contrary to my Engagements.

⁵ *Simon Gratz Autograph Collection*, Pennsylvania Historical Society Library. Published by permission of the librarian.

I have the honor to be with Every Sentiment of Sincere
Esteem your much obliged freind and
Obt. hbl. Servt.

JAMES RUMSEY.⁶

Rumsey received the following reply to his letter to
Boulton and Watt:

To Mr. James Rumsey
of London
Sir

Soho 14th Aug. 1788

I returned yesterday from a Journey of business, when I
found your letter of the 6th Inst. which I have sent by this
days post to Mr. Watt, who is now at Buxton Wells for the
recovery of his health.

It appears to me there is so great a change in your senti-
ments that I have little hopes of our forming any connection,
because you reason as if you expected shadows to counter-
balance substance.

I sincerely wish you may fully reap the fruits of your
own Labour & inventions & hope you'll allow us to do the
same.

You say its no favour to be supplyd with Engines upon
the usual terms. —our terms for foreign Countries are differ-
ent from those of this Country, for obvious reasons. What-
ever we have the trouble & risk of manufacturing here, wheth-
er it be Buttons [?] or Fire Engines, We certainly will not
sell without taking a fair profit, and the Terms between
buyer & seller, I consider as Mutual; particularly as we did
not wish to restrain you in your profits upon goods so bought.

You say that in America we cannot make you any con-
cesions, not haveing the claim, but surely for our knowledge,
our Experience, our fair profit & our trouble &c. in Manufac-
turing we have a natural claim to in all Countries, and in
this the Law gives us to our natural right & Claim an Ex-
clusive privilege to *Make Vend & use* Steam Engines upon
certain well defined principles.

I own it appears to me that restraining you to use no

⁶ Published by permission of the American Philosophical Society.

other engines for Boats but such as are upon our principles, was unnecessary, because I know no other will answer the purpose so well.

As to Boilers you must allow me to observe that Mr. Watt was the first & only discoverer of the precise quantity of Water & the exact quantity of Steam of a given elasticity as well as the knowledge of the Total quantity of heat produceable by a given measure of such Coals as this Country produces & thereby we are enabled to know the utmost limits of Boilers.

I can't help smiling at Mr. Vaughans reasoning upon that subject, which I own is very ingenious, but my opinion is, that when he hath tryed as many boilers as we have Hundreds, he will have discovered some Mistakes in it. There are many Cases in which your boiler cannot be used & there are many in which it may & therefore we wish not to discourage you from takeing out a patent for it & we'll render you any assistance in our power in the introduction of it.

At a former meeting we told you that we can, & do in common practice, Evaporate ten pounds of Water with one pound of Coals & inasmuch as your boiler will do more, so ought its nearer approach to perfection be estimated.. You may easily determine its ratio by Experiments which are worth a thousand fancies or theoris.

Partnerships ought to be founded on equitable principles & like a pair of Scales be Balanced, either with Money, Time, knowledge abilities or by possession of a Market & upon these principles were our propositions grounded but it now appears to me that our Sentiments are not in unison & that you have mistaken your road to the goal in view; however I shall forbear saying more untill I have had a conference with Mr. Watt upon the subject & in interim remain

Sir Your obedt humble Servt.

MATTHEW BOULTON.⁷

⁷ All letters of Boulton and Watt quoted in this volume are in the *Boulton and Watt Letter Book*, and are published by permission of Mr. H. M. Cashmore, Librarian, Birmingham Public Libraries.

That Matthew Boulton was very much disturbed over the turn affairs had taken, relative to the proposed partnership with Rumsey, is evident from the following communications with his partner.

On August the fourteenth, he wrote to James Watt, at Buxton, Derbyshire:

. . . I now inclose to you a letter from Rumsey and one from Vaughan to him. I do not send them to you for the sake of pleasant reading, but for the purpose of giving you time to cool, to reflect and to write a guarded answer as I consider Vaughan a dangerous man. . . .

The next day he wrote again to James Watt:

Dear Sir:

I wrote to you yesterday concerning Mr. Rumsey's and Mr. Vaughan's letter. I now send you my answer to Rumsey whom Vaughan seems to have the total possession of, but he shall never have possession of me. That part of Vaughan's letter in which he intimates, that if we are not connected with Rumsey, other mechanists may be found and the engines may be made in Ireland where no regard is paid to patents. This shews the principles of the man in so clear a point of view that I cannot express how much I detest him but perhaps you'll say I am in a passion. Perhaps I am and I hope I shall never be so void of feeling as to be insensible to such rascally principles; there is a sycophantic affectation of respect and threat through his letter.

The only thing I fear is their application to Jno. Wilkinson who I shall consider as bad as V[Vaughan] if he supports them, and I think it would not be amiss if we were to write to him without nameing of names but shew him that it would be incompatible with his interest, with mutual friendship, with justice and honor, and that we should consider it a declaration of war against us and act accordingly.

Rumsey, having made further proposals in regard to a partnership with Boulton and Watt, received their final answer, declining to accept his overtures:

Mr. James Rumsey
Sir

Birmingham Aug 29 1788

Being now both at home we take the earliest opportunity of giving you our final answer to your letters of the 6th & 22d instant.

Though we are in general much averse to partnerships or close connections for carrying on new inventions, yet from the very favourable opinion we formed of your abilities & character we were induced to make you offers which we shall not probably make to any other person in the like circumstances. On fully considering the objections you state to these offers & also the fresh proposals you make in lieu of them, we do not think there is any prospect of any terms being proposed which could make a connection agreeable to both parties; It is therefore our Opinion & *desire* that the negociations should now terminate, having nothing farther to propose on our grant, except our wish to remain on a friendly footing with you.

In regard to your new Boiler, consisting of a narrow tube bent in a spiral or zigzag form, containing the water within it & having the fire or flame applied to the *outside* of it (the drawing of which you showed us) we shall give no opposition to your obtaining a patent for it, and shall observe the necessary secrecy until that patent is compleated, in which we wish you success.

We beg leave however to remind you of what we formerly mentioned to you, that Boilers consisting of tubes bent in similar manner, but having the fire or flame passing through the *inside* of them & the water on the outside have been made both by ourselves & others and that our J. W. once made a Boiler the grate bars of which were hollow tubes on which the fire rested, under an arch of metal surrounded with water.

We recommended Mr. Handley to you as a person who has always done our business faithfully as we expect he will do yours. We had no other motive whatever for wishing you to employ him & though we look upon your continuing to do so as a mark of your confidence in us & of your candour, yet we cannot desire you to employ him any longer than seems to suit your interest.

Your improvements in the Barkers mill, or the saw mill, we repeat that we make no claims upon.

It is with regret that we find ourselves obliged to say that we cannot resign our claim to the use of the method of employing the power of Steam Engines to the propelling of Boats, by the reaction of water confined in tubes & acted upon by pistons or oars; and also in rivers & canals by means of poles acting upon their bottoms; & the same candour you have observed towards us, obliges us to inform you, that we shall immediately take such steps as will render any patent for that purpose of no avail.

We are extremely sorry to differ so widely in sentiments from yourself & your friends in England & wish that it would have been otherwise; but as it is, we hope that you & they will excuse our following what appears to us to be our interest, as we certainly shall excuse you for pursuing yours.

We remain with sentiments of esteem & regard
Sir

Your most obedient
humble servts.

MATTHEW BOULTON.

JAMES WATT.

To Robert Barclay they wrote:

Robt Barclay Esq.

Birmingham Aug. 29 1788

Dear Sir

When Mr. Rumsey left this place we hoped he was nearly satisfied with the proposals contained in our letter to you, and as it appeared to us that his friends in America had entered into a subscription for carrying on his schemes, more from a desire to promote his interest, than from any views to their own advantage, we thought that upon repayment of the money advanced by them, they might be prevailed upon to relinquish their rights in his favour; in any other shape we could not wish him to give up his friends had it been in his power.

Since his return to London he has by advice of his friends, wrote us a letter declining our proposals & offering

other terms which we can by no means agree to, as being in every shape inconsistent with our interest.

We have this day written him an answer declining all further negotiation on the subject, we have forbore to enter into any arguments with him, as in this state of the business, & with the ideas entertained by some of his friends, arguments could answer no good end & might probably tend to disturb that good understanding in which we desire to live with Mr. Rumsey & all other men of real ingenuity and probity; and at any rate we wish to terminate every negotiation with the same good humour it was begun.

We have sent you a copy of that letter with this and also a copy of Mr. Vaughans letter to Mr. Rumsey & his letter to us, both which we suppose you have seen before though you may not have had time to consider them.

We expect you will find that our last proposals to Mr. R. are consistent with the letter we had the pleasure of writing you before we left London, or at least that they do not put him on a adverse footing than what we then proposed.

We repeat our thanks to you, Sir, for your kind endeavour, to promote a connection which you thought might be advantageous to both parties, we request your excuse for the trouble we have given you, & we hope you will attribute that we give you at present to our desire to maintain your good opinion which we value very much.

We remain with the greatest respect & esteem

Dear Sir

Your most obedt

& obliged servants

BOULTON & WATT.

On September the eleventh, James Watt wrote to Mr. Handley that he had entirely broken off all negotiations with Rumsey.

On November 6, 1788, Rumsey secured a patent "for his invented methods of constructing Boilers for Distillation and other Objects, and for Steam Engines for various purposes."

Being almost without resources after securing his pat-

ent, he sought to enlist the interest of a number of influential people in London in his enterprise and finally made an agreement with Whiting, reputed to be a man of "wealth and high respectability," by which a ship was to be built at a cost of six hundred guineas, exclusive of the cost of the "steam machine."

The following January, Rumsey wrote to Charles Morrow:

I have (as I before acquainted you) got my English patent granted complete; and have considerable progress made in Holland and France, towards securing me patents there. I have the friendship and support of men of influence and money, which is at my service to make experiments which I shall begin next spring. . . . The perfectness of their mechanism here insures me success; and my intention is to get a vessel (if possible) large enough to go to France and Holland by Steam alone.⁸

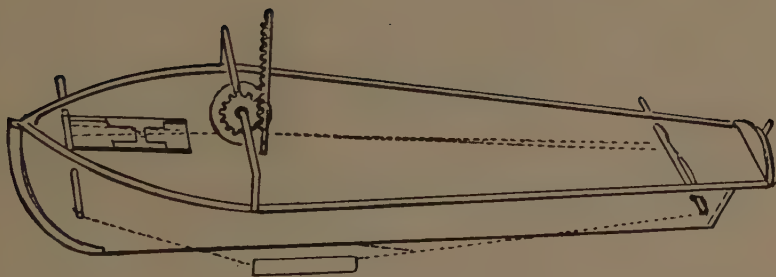
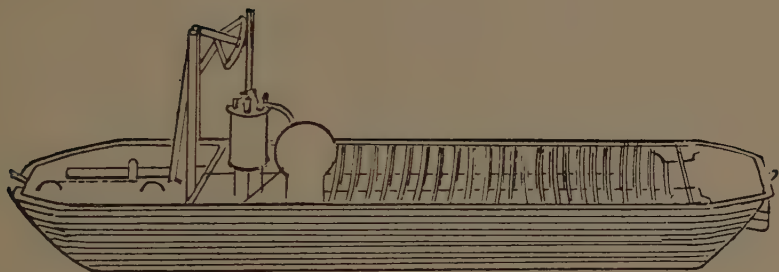
Several weeks later, he wrote to Morrow that he had just returned from Dover, about seventy-two miles from London, where he was getting a vessel built of about one hundred tons burden, to try an experiment. He went to Dover in Thomas Jefferson's carriage.⁹

J. P. Brissot de Warville, who saw Fitch's steamboat on September 1, 1788, wrote:

I have seen Mr. Rumsey in England. . . . He is a man of great ingenuity; and, by the explanation which he has given me, it appears that his discovery, though founded on a similar principle with that of Mr. Fitch is very different from it, and far more simple in its execution. Mr. Rumsey proposed then (Feb., 1789) to build a vessel which should go

⁸ Report No. 403, House of Representatives, 29th Congress, 1st Session, p. 30.

⁹ Report No. 324, House of Representatives, 27th Congress, 2nd Session, pp. 4-5.



Rumsey's Steamboat, English Patent

to America by the help only of the steam engine and without sails. It was to make the passage in fifteen days. I perceive with pain that he has not yet executed his project; which, when executed, will introduce into commerce as great a change as the discovery of the Cape of Good Hope.¹⁰

In a letter to his brother, Edward Rumsey, written March 7, 1789, the inventor gave a further account of his enterprise:

A gentleman here has undertaken to furnish me with a vessel to try my experiment upon. She is now building at Dover, 72 miles from London. She is large enough to go to the East Indies. The engine is making for her and I expect to make the trial in May. Much depends on the execution. The eyes of many are upon me; the newspapers have something to say about the matter often; and even the playhouse has its strokes of wit upon the occasion. The following lines begin an epilogue spoken the other evening by the celebrated Mrs. Jordon:

“Cunning projectors may pretend to find
A scheme for sailing ships against the wind;
But never poet yet could start a scheme
For navigating plays against the stream; etc.”

This may be truly be called the crisis of my life, should I succeed, I shall gain more reputation than I ever thought possible to fall to the share of any one man; If I fail, I shall be ridiculed and abused in all the public prints in Europe. This will, of course, give you some anxiety; but I think I need not alarm you, for I assure you that I am very sanguine, and have all the philosophers on my side. . . .¹¹

About a week after writing this to his brother, Rumsey found it necessary to go to Paris, where he was endeavoring to secure a patent. Thomas Jefferson, then our rep-

¹⁰ *New Travels in America*, Vol. I, p. 197.

¹¹ *Report No. 324, House of Representatives, 27th Congress, 2nd Session*, p. 5.

representative at the French Court, exerted his powerful influence in the inventor's behalf. Heartened by Jefferson's encouragement, Rumsey wrote in exuberant spirits to his friend, George W. West, who was then in London:

Dear West;

I have this day had a good ride upon my hobby. It was by the particular request of our american Ambassador that I took this ride, and glad I was of the opportunity of mounting, having been so long out of practice, by being in a Country where the people Could not understand the Language in which I explained hobby. Gates, Mr. Jefferson's Hotel was the place appointed for me to exercise, and I had not been long mounted before Mr. Jefferson bore me Company and fine sport we should have had, would time have permitted; but dinner time came on and company arrived that had been invited to dine. The horse was therefore obliged to be Stabled; however Mr. Jefferson was so pleased with hobby, that he borrowed him of me, with the Explanation of his gates. I know very well that what I have Said will Convey to you a Very Clear idea of the business of the day but I beg that you will not explain it to anybody (not *nobody*) in the same way. To be Serious you cannot Conceive how attentive Mr. Jefferson has been to my business, he has been to the Hotels of a great number of the nobility to gain their interest in my favor, but the most of them are unfortunately for me, in the Country at the Elections now holding, when they return I have no doubt but I shall Succeed in the object of my Survey, what is much in my favor is Mr. Jefferson's being the most popular Ambassador at the french Court, they are certainly fond of America in this country, for American principles are bursting forth in every quarter; it must give great pleasure to the feeling mind, to see millions of his fellow creatures emerging from a state not much better than Slavery. I have been but little out but from what I have seen, I think I may venture to say that this country exceeds England in all arts that tend to magnificance and grandure; but in the more useful ones such as manufacturing etc, I think they are far behind; you can form no adequate idea of the elligance of their Statuary, buildings, furniture, etc. perhaps after all

I may have mistaken quantity for quality, and glitter for elligance; for on recollecting some of the Stautues that is in Westminister Abby, my assertions seem to be rather extravagant, and favor a little the marvelous that *you* have learnt me to deal in with such ease. but do not take this for a recantation of what I have before said, as it is only meant to gain a little time that I may the better make up my mind upon the subject.

March 22d. I have this day been viewing the boats upon the Sceine they are wonderfull large indeed and Cary from 5 to 6 hundred tons, the average cost of horsehire to bring them from [*illegible*] to Paris is *Sevinty guinies a trip* which they perform in about 12 days, an Engine would bring them up for *ten*, including all Expense, it is said that their is several thousand Souch boats in the kingdom! think of this, and no longer blame me for being so fond of rideing hobby, I have such a freindship for you, that nothing short of observing how pleasantly your little horse carries you, would prevent me from giveing you an invitation to mount along with me, and after a little practice to go to the Em-poror of Germany, or the King of Spain, to Soliset Exclusive rights, or reward, for the use of the hobby, this kind [?] perhaps [?] not suit business of importance; so seriously, let me hear what you would think of such a tour, the countries I speak of exceed france for advantages, and I think their is no human event not yet come to pass, that can be calculated upon with such certainty as the boat plan.

There is a Mr. barlow here, the boston poet I suppose you have heard of him, he appears to [be a] Steady clever man, I have some notion of [asking] him to go to some of the European states, I wish you would hear Mr. Trumbles opinion of him, and let me know it.—If the boiler is not cast before this comes to hand give directions that their be left two inches between the bottom of the box that holds the fire and the bottom of the boiler [*two words illegible*] directed to leave but one. I have been thinking also that the Screws on the sides of the fireplace might hold it to the outside case, without haveing any at the top or bottom, consult the founder about it. I am your freind & hbl. Servt

JAMES RUMSEY.

P. S. When I wrote this I intended to have Sent it (with Several others that I have written to you) by a private hand, as Such opportunity has not offerd I now Send this forward and shall keep the others, which relate to my jurney & for an other Conveyance, I beg you will keep this letter by you as it will remind me of Some things I have not yet recorded. This is monday morning, last Evening I was at the play! where I heard music, Saw danceing etc. but understood *not a word*.

(Addressed to Monsieur West, London).¹²

On March the twenty-ninth, the anniversary of his departure from Shepherdstown, Rumsey wrote to Morrow:

Dear Charles

I Suppose you will be Surprised from the date of my last letter when I tell you that I have been in paris two weeks and that its distance from London is upwards of 300 miles, the letters addressed to My friend West that will accomp, this will give you Some information of my Journey etc. etc.

It is now about three oclock and Considering the difference of Longitude makes it about ten oclock with you and precisely one yeare my friend Since I Shook you by the hand and left your hospitable Cottage with a heart over flowing with love and gratitude for the inhabitants thereof, the partings and toke [*mutilated*] of that day Charles Caused my philosophy & fortitude To totter and I believe nothing Short of Desperate Circumstances Such as mine then was, Could have Enabled me to persue the precarious undertakeing I had Set out upon and leave the once peaceful Shades of Berkeley; you Can have no Idea my freind of the Various Sienes of anxiety and care, that I have went through, attended with the agitations—both of body & mind that hope, fear, Success, and disappointments in general occationed, yet not retreat, (except that of poverty and Contempt through a wildlerness of want) was left for me to attempt and therefore a desperate persuit

¹² *Rumsey Letters*. Presented to the Library of Congress by Mrs. Jane Hargis, granddaughter of Susan Rumsey Skiles.

became necessary, *Conquer or fall* was my motto! these principles has led me in haste to this great City where one of the holy order, an Abby, was makeing head against me, and was inroaching fast upon the great prospect, that this Kingdom held out to my Views but (frenchman like, full of politeness,) as Soon as I arived, he took his departure for another world, from where no travellers are yet returned. The road now being Clear I have reason to believe a grant will Soon be obtained in my favor. I have been frequently at Mr. Jeffersons, our American Ambassador, he has got al that Ease, affibility, and goodness, about him, that distinguishes him as a good, as well as a great man, he has taken much pains Indeed to Serve me, yesterday Evening by his Appointment I met A Monseiuer Leroy, (a leading member of the Royal Accadime of arts and Sciences,) to Explain the nature of my business to him, that he might State it to the Accademy, he was much pleased with my plans and Informed me that Doctr. Franklin had wrote to him Several times respecting me Since I have been in Europe on the [w]hole he was very Clever understood the business & spoke English well, but you will pity me when I tell you the necessary preparation to wait on Such Charactors, or in Short on any jenteel person (if in the afternoon) I was obliged to be dressed in a black Coat, west Coat breeches & Stockings, my hair handsomly dressed and powdered, and the hind part in a large black bag; by my Side a Sword! my hat in my hand and (hard at my [heels] a lusty french Servant, brought up the rear! in this order (to use my Sister Marys Expression) I went Jackleing [?] along you may perhaps think I am joking when giving this description of what is necessary to pay a french Vissit, but be ashored it is true, and that it is as Common for genteel people to walk the Streets with their hats under their arms as it is in our Country to have them on our heads. In short many of their hats are nothing more than a three Square flat thing on purpose to be Convenient to Carry and are never put on at all! I had like to have forgot the muffs for the hands, which In truth are often as big as a half barrel! and are generally worn, by boath men, and women, you will naturally Conceive the appearance! These are things Charles, that at first, I had no idea was a necessary Conection of a Steamboat! After ashore-

ing you, and my Sister, that you Ever have my Sincere Wishes for your well fares, and happines, & requesting you to remember me in the most Efectionate manner to my relations & friends, I must bid you farewell.

J. RUMSEY.

Addressed: Charles Morrow
Shepherdstown
Virginia¹³

As he was about to leave Paris, Rumsey sent this very formal note to Jefferson:

Mr. Rumsey has the honor of returning Mr. Jefferson his most Sincere thanks for the friendship and attention he has received from him, Mr. Rumsey has taken the liberty to direct that if a letter Should come to the hotel where he lodged for him That it be forwarded through Mr. Barlow to Mr. Jefferson So that Should a letter come from the Minister Mr. Jefferson will receive it, and will much oblige Mr. Rumsey if he will open it and take Such measures on the Content, thereof as Mr. Jefferson thinks proper. Mr. Rumsey is Exceeding uneasey that his Suddent Departure prevented him from giving timely notice to Mr. Jefferson, that he might have had the pleasure of Carying his letters to England.

Thursday Morning
Mr. Jefferson. April 9th 1789.¹⁴

On the twelfth of April, Rumsey wrote to Morrow:

Dear Charles

I arived here Last Evening about nine Oclock from Paris Which place I left on the 9th in the morning at 7 oclock, their is Expeditious traveling in Europe but the Expence Intolerable before I left Paris my business was in Such Strain that there is but little doubt but I Shall Soon obtain a grant in that Country for my inventions. Mr. Jefferson attends

¹³ *Rumsey Letters*. Presented to the Library of Congress by Mrs. Jane Hargis, granddaughter of Susan Rumsey Skiles.

¹⁴ *Jefferson Papers*, Library of Congress.

to the business for me in my absence, he has treated me With the greatest posable Civility. I dined at his house the day before I came away when he made me a present of a book and a pair of new invented tooth drawers the two worth 7 dollars at least, there was at his house that day a great number of nobility with their Stars & garters, and their Countesses and ladyships; the reason that the number of them was remarkable on that day was on account of a yearly procession of all the Carrages in Paris, parading on a long field a few miles from the City these Carrages had to pass his house, the procession began at two oclock and lasted to about 7 forming two lines reaching from the City to the field and back again besides the field full, the Company in them was dressed (and their horses and Servants decorated) in the most superb manner that human folly Could Suggest. I need Say nothing about our return to London as it was by the Same rout we went to paris Except that we ware Stopped and rob[b]ed on the famous black heath Common by three footpads. I was in a post Chase with a Mr. Parker whom I have before mentioned, I had a pre Sentiment that Such a thing might happen and therefore hid all my money Except about one & a half guinies my watch I kept in my hand and the moment the rains of the horses was Siezed and the pistol presented to the postilion I threw her in the bottom of the Carrage among Some Straw, the doors was Soon opened and a pistol presented at each of our heads! We delivered what was in our pockets which by no means Satisfied them, Mr. Parker haveing used the Same precaution with his watch they Suspected we had hid them and made some Search, at the Same time Swareing most bitterly, that if we did not produce the watches that they would blow our brains out, however we stuck to our first [*illegible*] that we had none, and they at lenth Shut the doors and ordered us to drive on. Mr. Parker lost about twenty-one or two guinies, but we both Saved our watches, but I Can ashore you that this geting rob[b]ed is a very Serious Business, Especially when they get [*mutilated*] in geting the Expected booty, which was the Case with us, as the Cheif they got of Mr. Parker was french bank bills, in a pocket book, therefore they Supposed their prize was very Small.

I Expect that the [*mutilated*] will nearly bring about the day of my Experiment Should I not be obliged to go again to france before that time. I have nothing new to inform you of Except my receiving letters from philadelphia that doath not give me much Satisfaction; poor barnes he has no Suspetion of mankind, and I doubt he will let our inventions be clogged by private Veivs; without Ever Suspecting it!
 . . . ¹⁵

It appears from the letters of Rumsey and Jefferson after the former's return to London, that the "new-invented tooth drawers," about which he had written so enthusiastically to Morrow, caused him almost as much concern as his boat project and other enterprises. He writes:

London May 22d 1789.

Sir,

The first leasure hour I had, after my return from paris to london, was employed to find out a person that would advance Some money for the Tooth drawers, (that I had the honour of receiving from you) for the use of the inventor of them, Several persons Seemed willing to give Something for them, provided that they would answer the purpose well on Experiment, and wanted me to put them into their hands for that purpose, which I did not think proper to do, not knowing their Characters; I mentioned the Sircumstances to Mr. Vaughan, and he was kind enough to propose Shewing them to a Mr. Cline (or Kline) a famous annatomist, who he thought might be depended upon; I have this day Called upon Mr. Vaughan to know the result of the application; but to my great Surprise Mr. Vaughan informed me, that Mr. Cline ashored him, that Such had been in use in England, to his knowledge for upwards of Seven years Mr. Vaughan left them with Mr. Cline, and requested him to make them more public, as he Conceived them to be a useful machine; I confess I have my fears that Mr. Cline has not been Candid in this business, but as I know nothing of him, but what I heard from Mr. Vaughan; I therefore did not think it prudent to

¹⁵ *Rumsey Letters*, Library of Congress.

Express my doubts to him, I am realy Very Sorry that I am not able to give you a more Satisfactory account of this matter, I Shall however take Some pains to Discover whether Such a thing has been in use, in this Country, or not, and Shall let you know the result of my Enquiry.

The Machine for my Vessel has not gone on so briskly as I expected, the case I beleive with all new inventions the Machanicks, not being able to execute them, with Such dispatch as they do those they are acquainted with, I Expect however that an other month will be near the time of Experiment—I am Sir under many obligations to you for your kind attention to my business in france, and Shall Ever remember your freindship with gratitude—I have the honor to be Sir with great Esteem your most obliged and Obt. hbl. Servt.

JAMES RUMSEY.¹⁶

In his next letter to Jefferson, Rumsey writes of news that he has received from America, concerning the organization of the government under the Constitution. He is interested in the appointment of a committee to draft a bill for the establishment of a Patent Office and comments on the inadequacy of existing patent laws.

Dover June 6th 1789

Sir.

I have letters from america as late as the 24th of april and as the Ship Came from philadelphia, I thought it posable that you might have had none of So late a date, I therefore Concluded that the little news that they brought me might be (under Such Circumstances) acceptable to you. The amount of it is That his Excellency General Washington arrived at philadelphia on the 20th of April, amidst the acclamations of a joyous multitude, That the next day he Set out for new york where he arrived on the 23d. that the Federal government was Compleatly organized, and that Con-

¹⁶ *Jefferson Papers*, Library of Congress.

gress was opened with great harmony; and public affairs wore a very promising appearance. It is Sir agreeable news to hear of their proceeding to business. So Calmly after So many warm, and irritating party disputes.

my letters mention that there was a Committee of Congress appointed to bring in a bill for Establishing an office for granting Exclusive Rights to inventors etc. This a business that is at present upon a bad footing, in any part of the world. England I believe has fixed it on the best Establishment, yet it is far Short of being Equitable, or Encouraging to ingenious men, which I Suppose was the object Such laws was intended to embrace. The dispute between Mt. Fitch and myself has Caused many of the gentlemen to be Very tenacious about giving grants, So much So that the assembly of new york, and Some others, would not give me a grant for the principles of my boiler, but only for one formed like the drawing laid before them (which was intended only to Explain its principles more Clearly than Expressions Could.) alledgeing that any other kind of grant, would Cut of others from improving on it, and So I think it ought for a limmited time, for what will a grant be worth, if Every form that a machine Can be put into Should entitle a different person to use the Same principle; there is no machine Extant but what might be Varied as often as there are days in a year, and Still answer nearly the Same purpose. Such machines as are already in use (and their principles not under any restrictions by patents) then Every person Improving on Such machines ought to have a grant for Such improvement and no more, but Where the principle, itself is new I humbly Conceive that it ought to be Secured to the inventor for a Limited time, otherwise but few persons will Spend their money and time in making new discoveries, knowing that the first person that Varies the form of his invention will be intitled to receive Equal advantages from it with himself. The french method of haveing new inventions Examined by a Committee of philosophical Characters, before a grant Can be obtained, is Certainly a good one as it has a tendency to prevent many Simple projectors from ruining themselves by the too long pursuit of projects that they know little about.

I have troubled you Sir with these remarks, not only

because I am deeply interested myself in having a just and permanent Establishment of this business made, but because I wish my Countrymen to have Such Encouragement given to them, as to Cause them to out Strip the world in art & Seeing and knowing you Could throw great light upon the Subject upon your return to America was Still a greater inducement for me to wish to draw your attention towards that object—I meet with many delays in getting forward my Experiment, It will be ten days yet before I Can have the Vessel Launched, by the time She gets to London I expect to have the mashinery ready to put into her, what time it may take to fix it is uncertain, but I hope not long; I have a dread Come on me as the day approaches on which I have So much at Stake, yet Every review I take of my plan Confirms me more and more in its Success. —

I have the honor to be Sir with Every Sentiment of Esteem your most obliged freind & obt hbl. Servt.

JAMES RUMSEY.

P. S. I have not had it in my power hear anything more about the toothdrawers Except that Mr. Vaughan asked me if I had informed you what had been done, I toald him I had, he Said that the annatomist, I forget his name at this Instant, was getting a pair made by them. I am, JAMES RUMSEY.
please to Excuse the Scarcity of paper¹⁷

Shortly after his return from Dover, Rumsey found himself in more serious financial straits than he had even dreamed of, as his partner, Whiting, became a bankrupt before he had contributed one cent towards the building of the vessel. Rumsey wrote to Charles Morrow the following graphic account of his difficulties:

You remember I long since informed you of a gentleman that was so good as to offer me money to try my Experiment and that I had a Vessel building at Dover for that purpose. She is now finished and is at London what is still better paid for, the hull Cables and ankers and trunk in her

¹⁷ *Jefferson Papers*, Library of Congress.

bottom cost 600 guinies; you will be frightened when I tell you that after I had entered into an agreement for this Vessel and had subjected myself to be drawn upon for very short periods for the money, I returned to London where to my great astonishment I found my Freind and patron in Jail for a Large Sum of Money

I had just received a remittance from the Society about Sufficiant to make the first payment for the Vessel which unfortunately was lodged with him with the greatest Difficulty, and with more address than I ever before was capable of, I got it out of his hands, contrary to the Expectation of Every one, that knew the circumstances by which I was Enabled to make the first payment. My Situation was Such that I was obliged to close with the first person that would let me have money, a good natured honest creature that knew no more of my Scheme than an *Idiot* proposed to Lend me some money. I accepted of it and got £500 of him, from two other gentlemen I got £200 more and was going on tolerable well when a partner of my honest freinds returned from abroad, pretended to be much dissatisfied with the money having gone without having Some considerable part of the Scheme for it. We had a meeting in order to try to contract for part of my british patent, but could not agree. They offered me £1200 Sterling for one-fifth of it; my reasons for not closing with them when in so bad a Situation were many. They then pushed for their money which obliged me to apply to the Very gentlemen through [w]Home I intended to get the goods; for the lone of that Sum. they ware good enough not only to let me have that Sum but as much more as will furnish my Experiment the cost of which will be at least one thousand guinies. This you will say is a great deal of money for me to borrow in a strange Country Especially when the Society that sent me here has actually in one sense of the word deserted me haveing fairly refused thogh not in direct terms to Establish a credit here for me to try the Experiment. . . . The Society's words are "if the Experiment you are about succeeds you will send us out an Engine for a twenty-ton boat by Capt. Sutton; the cost of which they will pay to your order; at our next meeting the Society will take into consideration a proposition that has been made to

them for Establishing a credit in London for such Engines and meachines as they may want." I will leave you to Comment upon what they have said but I Conceive I am to get no Credit Except the Experiment succeeds. I have written them a Sperited Letter in which I toald them as this Experiment would be at my own risk that I expected all the profit if any should arise of that Vessel. . . .

The machinery is now on board the Vessel and is going slowly together. I remain quite sanguine. She is a beautiful Vessel Burthen 101 & 45/94 tons. I have called her *Columbian Maid* but think to change it to *The Rumseian Experiment* as soon as success is ascertained. . . . I am much obliged to you for setting with your legs a X for my success; it is certainly my freind a great undertaking to attempt such an experiment as mine under the eyes of one million of Souls.¹⁸

One reason for Rumsey's determination to finish his boat as speedily as possible was the fact that several other persons were making experiments with steamboats, though not on his plan.

"As shore as I have success," he writes, "I shall have powerful opponants and although I have (until Now) kept it as private as possible yet I have Secured several powerful friends to intorduce me to the lords of the admorality etc. as soon as my Vessel is ready the Duke of Clarence, the kings third son has been informed of it and is much pleased with the account, several of the nobility and Sir Joseph Banks (*president of the Royal Society*) are ready to tender me every service in their power, my plans have been approved of in the Royal Society of acedemie of Sciences in Paris and by the Society of the museum of arts and Sciences, in the same place where though the interest of the Marquis de Condorset and Some others of my friends their. I am proposed as a member of that Society. It takes Some

¹⁸ August 4, 1789. *McMeechen vs. Rumsey Papers*, Virginia State Library.

time to go through the necessary Ceremonies but Suppose I shall be Elected Doctr. Franklin is at present the only one upon that list that is an American, no person can be admitted that has not produced some new philosophical discovery; So much my friend for the gratification of Vanity, the substance I find it harder to come at yet I hope it will all come about in due time."¹⁹

A further account of his difficulties is found in a letter to Jefferson, written on September 8, 1789:

London Sept. 8th 1789.

Sir,

You Should have heard from me long before this time, had it been in my power to have given you any information worthy your attention, respecting my Experiment; which has been most unfortunately kept back, by the ungenerous Conduct of a person who undertook to assist me with Some money towards the accomplishment of it; on Conditions by which he would have been a gainer had the Vessel Success, and Could have lost nothing had She failed considering him as my friend, I had the Vessel registered in his name, myself being an alian Could not have it done in my own name; after he had advanced nearly all the money agreed upon, he took it into his head that he Could turn it into better account in another way, In consequence of which he informed me (with as little Concern as he would break a Childs plaything) that if I did not in a few (I think four) days produce him his money, that he would Sell the Vessel to raise it, which he Certainly would have done if he had not accidentally by letter made himself Liable to pay for the Engine; I prevailed upon the founder to Call upon him, and make a demand of the money for it; this frightened him So that he Came to terms immediately. Mr. Vaughan, and a Mr. Robert Barclay (to whome I had letters) have Since furnished me with the means of discharging the debt; this unlucky affair has put me back near a month with my Experiment; and will prevent me I fear (from what Mr. Cutting tells me) from giving you

¹⁹ August 4, 1789. *McMechen vs. Rumsey Papers*, Virginia State Library.

an account of my Success, before you leave Europe; I am not under the least apprehension of failing; I have by weights hung to a Cord made fast to an anker, and drawn over a pully in the head [?] of the Vessel tryed what power was necessary to hold her against the Current of the thames; the power of the Engine being known it may be (nearly) ascertained how fast She will go; for my own part I have little doubt of her going upwards of one hundred & fifty miles in Each twenty four hours; by Steam alone, and am Satisfied that ten miles per hour may be looked up to with a great degree of Certainty; where the Engine bears a proper proportion of Size to the Vessel; mine is rather Small, my Vessel haveing got thirty tons larger, than what She was intended to be, when the Cylinder was Cast.

It has been out of my power to ascertain Whether Toothdrawers, Such as you gave me, have been in use in this kingdom or not; but I Confess from my not being able to discover any Such in the shops of the instrument makers, that I believe that they were not; Mr. Kline I Suppose has had a pair made by them, as he has returned them to Mr. Vaughan. On account of the poor man that invented them I am Sorry that I have been So unfortunate in that business; It was my opinion before I came to England that men of genius posseseded liberality, but to my great disapointment I find them to be a set of mean pilferers; the Machanical part of them in particular are so to the greatest degree.

I with Sincerity Sir wish, that you may have a Safe, and pleasant passage to your own Country; and a happy meeting with all your friends.

I have the honor to be with much Esteem and regard, your most obliged and most

Obt. hbl. Servt.

JAMES RUMSEY.

P. S. I Suppose nothing farther will be done respecting a grant in france untill they hear of the Success of My Experiment, will you Sir be So obliging as to mention it to a freind or two that will assist me when I again have occation to apply.²⁰

²⁰ *Jefferson Papers*, Library of Congress.

Jefferson, who was about to return to America and who was deeply interested in Rumsey's project, wrote to the inventor:

Paris Sep. 10, 1789.

Sir,

Being near the time of my departure, I am anxious to know before I go if possible the fate of your experiment Monsr. Leroy told me that there was a difficulty with the committee of the academy, arising as he apprehended from their not understanding your principles: but that the experiment being once tried successfully there could be no doubt of your obtaining the exclusive privilege and as we have been daily expecting for some time past to hear of the experiment, we both thought it best not to endanger final success by prematurely pressing the Academy: the rather as it is agreed on all hands that the date of your application to them will secure you. I have never acknowledged the receipt of your favors of May 22 and June 6. because I expected instantly to inform you of the issue of your application. I shall be obliged to you for a line by the return of post informing me how far you are advanced. Tho I do not as yet know of a ship on which I can go to America, I trust one will occur in the course of a fortnight. Wishing you every possible success I am with great esteem, Sir,

Your most obedt, humble servt.

TH. JEFFERSON.²¹

In the following letters to Jefferson, it is apparent that Rumsey is confident that his boat is nearly ready for the long deferred experiment:²²

London Sept. 22d 1789.

Sir,

I receivd your favor of the 10th inst on Saturday last, this being the first post day Since that time, will make it I fear too late for this to find you in france; but I have no

²¹ *Jefferson Papers*, Library of Congress.

²² *Ibid.*

doubt but you have receivd a letter I wrote you by Mr. Morris on the 8th; which will inform you of the Situation my vessel was then in, and the cause of Such great delay in the Experiment; I Still meet with unaccountable delays occasioned by my workemen, yet hope that ten or twelve days more will be about the period that I Shall be ready to move. I am with you and Mr. Leroy, of opinion that further application for an Exclusive privelage in france is unnecessary, before the fate of my Experiment is known; Accept my most Sincere thanks for your freindship in that business.

I am with perfect Esteem Sir your most obliged and most obt. hbl. Servt.

JAMES RUMSEY.

Mr. Jefferson

London Octr 4th 1789.

Sir,

I have by the august packet, receivd a letter from one of the gentlemen, whome I am connected with in america informing me that the Rumseian Society, was upon the point of trying an Experiment, near philadelphia, with my improved Barkers mill upon a large Scale; and from the account I have receivd of the hight of the water, that is to work it, the dementions of the mechine, and the purposes it is intended for; I am Sure it cannot succeed, Even in a tollerable manner; my not knowing the Quantity of motion, and force, that they want to produce, puts it out of my power, here, to Say how much they will be deficiant in makeing the application to the best advantage; I only know, that the purposes the mill are for, (grinding Snuff etc) requires to Slow a motion for my Barkers mill, to Exert its powers to advantage, in the manner they are about to apply it; Its Excellence consists in moveing with great Velocity, (In proportion to the head of water that turns it) without thereby looseing much of its power; it follows then, that it, moveing, Slow will not give it power, in proportion to what it will loose, by restraining it from motion yet nearly the Same quantity of water will be Expended, that would if it moved five times as fast; which probably may be about the Velocity it aught to move with, in the above mentioned Experiment. The Philosophy of this mill, is not yet much known, of course the bad Success of this

Experiment, will Carry Conviction to the public, that it Cannot become usefull; and may make bad impressions upon the mind, of my friends with respect to my other inventions; Especially as my opponants will not fail to Set Every misfortune that my Schemes meet with, in the most disadvantageous point of view; It is therefore Sir, that I have taken the liberty of troubleing you with this account, of what I Expect will be the fate of the Rumseian Societys Experiment, of my Barkers mill; that my friends, in America, to whome you may be good enough to communicate the contents of this letter, may Suspend their opinions respecting the utility of that mill; untill I have an opportunity of makeing an Experiment with it, under my own direction; when I doubt not of makeing it perform all that I promised the public to Expect from it.

In all next week I Expect to try my Vessel, and am very Sorry that it was not in my power to get it ready, before you left Europe.

You have my best wishes for a pleasant Voiage, and your Safe arival in America.

I am Sir with the greatest Esteem, much obliged friend, and obt. hbl. Servt.

JAMES RUMSEY.

Thomas Jefferson Esq.

On October the fourteenth, Jefferson, then at Cowes, wrote to the inventor:

I am honoured with your favor of the 4th instant and will pay attention to what you say on the subject of the Barker's Mill, your friends beyond the water are about to erect. I am sincerely sorry not to have known the result of your experiment for steam navigation before my departure. Tho I have been detained here & at Havre 16 days by contrary winds I mu[st] hope that detention will not continue till your experime[nt] be tried.

As I feel infinitely interested in it's success, would you be so good my dear Sir, as to drop me a line on the subject as soon as the experiment should be made. If directed to me

at Richmond in care of Mr. Alexr. Donald & sent by a Virginia ship, I shall get it with certainty.

As soon as your experiment shall be over Mr. Short will do for you at Paris whatever I could have done towards obtaining you a patent there.²³

The experiment to which the inventor had looked forward with high hopes was a failure, and he found himself involved in so many difficulties that he did not have the heart to write to his friends at home until affairs had taken a more favorable turn, when he wrote to Morrow:

London february 27th 1790.

Dear Charles

It is a long time Since I last wrote you, and that letter had not left this Country before the fate of my affairs took a turn So much for the worse, that I never after dare to Communicate them to you; it was but the day before yesterday, that I was able to affect any Change upon them towards permanancy; from that time I have been obliged to write and copy So many letters for philadelphia by a Ship (as well as the one that brings this) that goes this day, that time will not admit me to make your Letter more than a *Text*, to the information that I would give you, let it then Suffice to know that every posable disapointment attended my Experiment, when it was all put together it proved So imperfect that almost the whole of it has been to do over again, the great delay and anormous Expense attending it, made my freinds doubtfull, and uneasy; and thereby put it out of my power to obtain money from them, to pay my bills, which dayly came upon me. The next thing was a person failing of whom I had borrowed 90 pounds, his assignees was as inExorable as devils, and indeed without even applying to me for payment took out a writ against [me] my friends on hearing of this Stood aloof, while I for a fortnight avaded the Vigilance of the London bailiffs, or rather devils, which would have without the Least remorse taken me to (hell) prison, I at last raised new friends (but must not omit nameing the son

²³ *Jefferson Papers*, Library of Congress.

of parson West as the principle one) that lent me the money. It did not end hear, the machanists took the alarm from my not attending vessel as useual and all came on me at once, I appointed a meeting of them all one morning as I told them to pay them off though I had not the money, they came, but previous thereto haveing before learnt the Value thereof, I dressed myself in Stile, I therefore had my head as Large and as white as a lords wigg, I toald them that if I paid them they instantly Quit my employ, as I could get a number that would be glad of my work and would wait as *useual* untill Six month after the work was done for their pay, this manuver and an air of importance that I forced on (much against my natural inclination) made the mean rascals (for Such the most of them are) bow to the ground and tell me with one Consent that they would finish the work, if I would Let them have that *honour*—it is necessary here to observe that I never had seen more than two or three of the number before, being my foreman and Capt that ordered the things, the latter of which was the Judas, that betrayed me to them on account of my giveing him notice that I should not Continue him on board this account I ashore you Charles is literally True. This Enabled me to go on a while longer during the time I kept myself Consealed, Earl Stanhope brother-in-law to Pitt Called on me Several times to get to see the Vessel. I thought it was a [s]cheme of the bailiff to take me therefore would not See him but sent Mr. West the third call with him on board Mr. West Explained the whole to him, and the Event is that his Lordship has petitioned for a patent for a Similar invention. I have Stopped him and we are to have a hearing I Expect Soon before the Lord Chancellor. how It may end I cannot tell—About this time while I was depending on the Society for releiff it was discovered that if I receiv'd any money from them, or acknowledged them to be Concern'd with me, that it would breake the patent and make it void to all intents and purposes—My last hopes of releif being thus Cut of, it became absolutely necessary for me to delay the Experiment, least an unsuccessful attempt should make my Creditors all fall on me at once, this I did by discharging part of the hands, but the dis-

appointments was so frequent in obtaining the different parts of the mechanism from people that had not the best of faith respecting their pay, that no deception became necessary to the spinning out the time, while in this situation the sanguine Mr. Wynkoop of Philadelphia drew bills upon me to the amount of one thousand pounds, Sterling; of course I could not accept them, they were therefore obliged to be (as they term it) noted at a public office, this was a new draw-back upon my reputation. Ever since I have been in Europe I have been acquainted with a gentleman or two of very philosophical minds that had faith in my plans and wished to hold part of them they were often wanting to purchase, my situation having got rope for a sail I made the attempt, it was on foot for more than two months both parties acting like armies of observation. . . .²⁴

The "gentleman or two of very philosophical minds," to whom Rumsey referred, were Samuel Rogers and Daniel Parker, with whom he, on March the twenty-fifth, formed a partnership. By the terms of their contract they were to advance £2000, one thousand in cash and one thousand in goods. This amount was to be increased to £7500 when the ship was completed. Rumsey, however, agreed to accept £800 in cash, as his partners were short of ready money.

The goods were shipped by Samuel Rogers from London, April 23, 1790, on the *Integrity*, commanded by Captain Dennis, to Baltimore and from there hauled to Shepherdstown, where Captain Charles Morrow was to sell them upon and for Rumsey's own account to indemnify him for his expenses, which amounted to over seven hundred fifty pounds sterling. The invoice shows that they consisted of a great variety of articles; including nails; queensware plates, cups, and saucers; handkerchiefs; China; double and sarsinet ribbon; lawn bordered, linen check, and "cross bard

²⁴ *Rumsey Letters*, Library of Congress.

Negligie" handkerchiefs; chintz; calicoes; cambletts, rati-netts; lace; sheeting; blanketing; women's scarlet coats and white and black silk mits; combs, including ivory and "Grace Crambo" combs; and books, among which were medical works, family Bibles, spelling books, and primers.²⁵

There was a bounty on the "stuffs of Silk & Ribbons" and on the sewing silk, amounting to over five pounds.

One can well imagine the excitement created among the inhabitants of Shepherdstown, particularly the ladies, when the foreign goods arrived and were offered for sale at Morrow's store. Either times were hard or husbands were stingy about furnishing their wives with spending money, as Morrow had great difficulty in disposing of the goods. The statement, so frequently made, that he impoverished himself by supplying Rumsey with funds to carry on experiments is not borne out by records of the settlement of the estates of Morrow and Rumsey.

Extracts from letters to Charles Morrow tell of the delay occasioned by the imperfection of the engine for the boat and of other difficulties that the inventor believes have been overcome:

I have, since my last by Mr. Hunston, had a hearing with Earl Stanhope, in which I got the better; his politeness on this occasion, as well as that of the attorney general, gave me a much better opinion of nobility than I had before that period. . . .

I have gotten my second patent out for the mills, improvements on the vessel, and several other things that are new. The mills are now constructing. My vessel has not yet been tried; you will think it strange, but the truth is, I cannot get my machine made perfect as yet, though I have proved it principally, and have made from twenty to twenty-two strokes in a minute. My vessel was fast moored;

²⁵ *Boteler Manuscripts.*

therefore, I could not see what effect it would have had; it would not do to let her loose, as I could not depend upon the continuance of the engine. I have now a great part nearly made new, and soon expect to give it another trial; of success, I have no doubt; but am distressed on account of the delay that takes place. If I had not made the sale, I must have been in a London jail before this time; that danger, however, is over, my friend, and the time has at length arrived that has made my pursuits more than ideal

My highly esteemed friend, Mr. G. W. West, will deliver you this letter I need not ask you to treat him with all the attention in your power; that I know you will do, from inclination as well as for my sake. He will give you a history of my affairs, with which he is better acquainted and longer than any other person in Europe; I therefore need not say a word on that score. . . .

No public experiment yet of the vessel; nor will I venture to name a time; my faith is as good as ever, though my patience is nearly exhausted; appearances, however, is in favor of its going soon. . . .²⁶

On January 5, 1791, Rumsey wrote to Morrow of further misfortunes—the failure of Rogers and Parker and difficulties with the Rumseyan Society:

I have but fifteen minutes Left to Scratch you out a letter of bad news by the packet of this month. The persons that I Sold my patents to have failed, which at present has put a total Stop to all my affairs I had my name on their Bills to the amt. of about three hundred pounds which I have got paid with much difficulty otherwise I should have become Bankrupt with them—I hope to keep the Vessel and all the mechinery from their concerns, if [I] do she will keep me Safe against debts that I owe on account of the Concern to the amount of £800 Sterling—The Society in america are mostly Leaches and Sharks, Some of them

²⁶ *Report No. 403, House of Representatives, 29th Congress, 1st Session, 30-31.*

has suppressed all my letters to Barnes for some time Back, in which was all Wynkoop's Bills, and instructions how to proceed thereon, the Vessel is ready to move with a Considerable degree of reputation, But must now be kept back from motives of policy. Should you send a Scheme of goods for the Spring do not Calculat upon my sending them to you with certainty as it is uncertain where or how this Late misfortune may End.

Some of the Society grumble at my Sending you goods, and have drawn more Bills upon me which Shall be protested. As the Society owes me Considerably on account of my advances here therefore Let no pretence what Ever induce you to Let them or any Person pretending Claims upon me (in Consequence of inventions) not Even Mr. Barnes have a Shilling. To Enable you to go on the better, do not remit me any more money here, thes are only a few hints of the deranged State of affairs at this moment, as Soon as they Come to Some fixed point you Shall have all the particulars Explained. I Expect nothing Else but a break with the Society who has Certainly behaved Rediculous to me in a Very great degree, the Very persons that they introduced me to here See it and are my friends though they would not trust them for a farthing yet they Lend me hundreds. I long to hear from you. give my tenderest respects to my family and all friends and believe me Dear Charles to be with unalterable Sincerity your friend and hbl. Sevt.

JAMES RUMSEY.

P. S. the post waits I therefore have not time to read what I have written.²⁷

On February the twelfth, 1791, "James Rumsey of Berkeley County in the State of Virginia in North America, Gentleman," but then "residing in the City of Westminster in the county of Middlesex" having obtained "Grants or Patents for the Sale and exclusive Right and exercise of, in, and to certain machines and engines and certain Improvements of machines and engines invented by him" appointed

²⁷ *McMechen vs. Rumsey Papers*, Virginia State Library.

Dear Charles, London Jan^y 27. 1844
 I have just perused the letter
 left to reach you out a letter of bad news
 by the books of this month. The persons that
 I told my boatmen to have sailed, which at the
 moment has put a total stop to all my affairs.
 I had my name on three bills for the sum of
 about three hundred pounds which I
 got paid with much difficulty otherwise
 I should have become a bankrupt as I
 them - I hope to keep the vessel and as I
 menhany from their concerns, if so be
 will keep me safe against debt to the
 an amount of the amount of the amount of
 of the Society in many
 or mostly teachers and books, some of
 them has signed all my letters. Some
 for some time back, in which was a
 of the bills, and instructions now

Letter from James Rumsey to Charles Morrow

the French Theron, who is ready
to move with a considerable degree of
reputation, but we it may be kept back
from motives of policy - I don't give
and a volume of good for the thing
don't point out when my sending them
to war with (or treaty as it is uncertain
where or how they rate my opinion. my
same of the society, I am able to my
ending your good, and have drawn more
Bills upon me which I will be protected.
is the society since we (and is able to
in account of my advances here they
select no more. what ever induces you
to let any man pretending claims upon
me (in consequence of intention) not then
I have a killing. To right you
to go on the better, do not remit me any
money here, they are only a few days

of the deceased. The affairs of this
moment, in London they come to some
good point you shall have all the pro-
ticulars explained. I expect nothing
else but a treaty with the Society.
has certainly believed the Americans to be
in a very great degree, the 18th of
June that they introduced me to
some very friends though they were
not first there for a fortnight.
The Londoners have been very
dear from you. give my love
renew to my family and all
and believe me Mrs. Charles
unfaltering sincerity & ever your
and W. J. Lin. &
J. P. the post was B and 8. therefore
not time to read what I have written.

"Charles Morrow, of Berkeley County, aforesaid, merchant, Joseph Barnes of the City of Philadelphia, Engineer, and Abel Buel, now residing in the city of Westminster, Engineer, but shortly about to depart for the city of New York, or any two of them to manage his affairs and concerns in making, erecting, constructing, using, and vending any Machines, or Engines, or Improvements of Machines, or Engines of his present or future Inventions, or in granting permission or licence to any person or persons in the United States to use and exercise the said inventions, or either of them, for any term or number of years for a reasonable consideration at the discretion of his attorneys or any two of them." They were to transact all business connected with the securing of patents for his "sole and exclusive right." Charles Morrow was also empowered to transact all other business matters for Rumsey.²⁸

Among Rumsey's most interesting letters is one to Morrow, dated February 27, 1791, in which he gives expression to the religious faith that sustained and strengthened him during his long separation from his family and his friends. He writes:

I have this instant recd your letters of Oct. and November which I supposed were lost in the brig, Ceres. I am happy to hear that my Sister had recovered from her illness before your letter left Shepherdstown. I thank her sincerely for her kind concern for me, more especially for her prayers for my eternal happiness, an acct. however, that I shall have to settle myself, & therefore hope she will not give herself too much uneasiness about it. That my conduct meets her approbation in all points but one is to me very pleasing, being sensible (between ourselves, Charles) that her opinions are not to be grinned at. It is easy to guess at the point in wch. she thinks me deficient. Religion with me is not a very

²⁸ *Boteler Manuscripts.*

complicated thing. It neither wants Priests nor law to explain it. I have lopped off the branches of prejudice and superstition wch. Tyrants, Folly and Avarice had grafted upon it. It now appears to me in its simple robes and flows from my heart, its source, to my head to be mildly examined by reason, that being the basis on wch. I rest all my concerns, having long since considered it as the polar star of our Voiage through this life at least so far as our conduct depends upon our own powers; and what does not is no doubt better disposed of. I have no idea of departing from what little understanding we have to pursue things that we can not even hope to understand and that no powers can ever explain to us. I had rather not have probed upon this subject. But as my religion doth not admit of deception, I therefore thought it wrong to be quite silent respecting it, especially after receiving your second hint on that subject. I am happy, however to inform my Sister that I can view my future expectations with as much calmness and pleasure as it is possible she can feel respecting her's, and can also tell her a secret which is that if she can always do what her head and heart approve of she will have a very fair chance to be happy thro eternity. I hope she will take in good part what I have here said, as it is really to ease her mind that I have attempted to explain some of the beauties of my Religion, and the full reliance that I have (provided I obey it's dictates) on it's guiding me safely to eternal rest.

Do not make yourself uneasy about the bad sales of your goods, as no doubt they will grow better. For you may rest assured that a short time will produce a great change in your favor, as I am satisfied that every few of your Competitors can stand it long upon such ground as you describe them to proceed upon. Besides, Experience has uniformly convinced me that after a glut of Goods there always came a scarcity. If, however, in the meantime you could turn your mill into a valuable farm (as Mr. Marks has done with his property) it might not be amiss. When you converse with Mr. Buell, who is well acquainted with all my affairs & inventions, it may induce you to take a concern in the mill & proposed to be erected at N. York, or to erect a mill by means of the goods (for ourselves) either at Baltimore or

Alexandria. I would prefer the first which has a beautiful Situation near a cold Spring at the head of the bason & is sufficiently near Shepherdstown for you to see it frequently. Let me have your sentiments as soon as possible upon the several foregoing ideas, that I may in time prepare to assist you, should you conclude to carry any of them into execution. Do not be uneasy at losing ten guineas in Support of a laudable cause. If we live a little longer, we shall have the pleasure of seeing my Enemies & the Enemies of Science, put out of Countenance by the Success of all my Plans.

Remember me affectionately to all my relations and friends, & believe me, Dear Charles, to be your sincere well-wisher,

JAMES RUMSEY.

P. S. do not wonder at my letter not being written in my own handwriting, as I have all that I have lately written copied and have too much to do to perform it all myself.²⁹

In a letter to George Washington, dated May 10, 1791, Samuel Vaughan says: "My eldest Son. Benj. desires me to say that he retains his first opinion of Mr. Rumsey & his Inventions; that his only difficulty has arisen from want of capital & that he is now on a visit to Ireland to give his opinion respecting a very considerable canal undertaken there; till the termination of some law disputes allow him to proceed in his operations here."³⁰

On September 12, 1791, Rumsey writes thus to his friend, George W. West, of the complications arising in his affairs because of the failure of his partners:

I hope you will excuse me if This letter should not be so full as you expect or I intended especially when I tell you that I am in the middle of a Specification of a patent I expect to have more patents than any man in Europe—I believe I have not wrote you but one letter Since april last which was by

²⁹ *Boteler Manuscripts.*

³⁰ *Washington Papers*, Library of Congress.

Capt. Chapman Last month, in which I did not mention one word of my progress through a firey trial which has not yet come fairly to an end . . . In april I was so far gone as to be obliged to wait upon my Creditors and tell them my Situation who was lenetive enough not to push me Suddenly to any Extremities hoping that rogers and parkers affairs would Come round by the rise of the american funds So as to enable them to pay me and go on in the mean time I was a perfect Lacquey to them about giving assistance in arranging their affairs as no person Could get to see parker only through me Rogers proved to be a man of more Cunning and duplicity than any man I ever met with and would by his fair manner have made me an easy Sacrifice if I had not been from experience much upon my guard; after many long negotiations an arrangement. took place between Rogers, his trustees (not assinees) and parker, in which I was highly Instrumental, and that made it necessary for rogers to go to holland in order to make an arrangement of parkers property there which was to be put into proper hands and lay twelve months untutched which object was accomplished and was the Corner stone of parkers Salvation from total Ruin as they Rogers & his trustees had attached some and was determined to attach it and get the rest of parkers property.³¹

This arrangement having been made, Rumsey was expecting to have a satisfactory adjustment of his affairs, when he found that Rogers was about to set out for Holland without making any provisons for his relief. He accordingly went to see Parker to try to get a settlement of his account with him. Much to his astonishment, Parker refused to admit that he had a valid claim, "aludeing no doubt," said Rumsey, "that I had broken the articles by carrying on the business in my own name! which no doubt you recolect was done Expressly to oblige Him & P."³²

Parker, when requested to "Settle and Sign the ac-

³¹ *McMechen vs. Rumsey Papers*, Virginia State Library.

³² Letter to G. W. West, September 12, 1791, *McMechen Papers*.

counts if he approved of them," did so without examining them. Upon Rumsey's notifying Rogers of his intention to institute legal proceedings to force him to make a settlement, Rogers proposed a meeting at the home of his principal trustee, Mr. Maitland; but when Rumsey went there, he could not gain admittance though he saw Maitland through a window. He insisted upon seeing Maitland, "who at last condescended to come to the Door," and promised him that he should see Rogers at six. "I according at that time called," he wrote, "but So Compleatly was Maitland's mind poisoned that instead of giving relief he expected [me?] to give security to repay the money I had had of R. & P. should I fail to go throgh & perform all the experiments I had undertaken" ³³

In the course of the time that had passed during Rogers' absence of two months in Holland, Rumsey had two interviews with two persons recommended by Mr. Rogers, who said that they wanted to purchase part of the patents. Being anxious to promote any plan that was likely to extricate him from his difficulties, the unsuspecting Rumsey answered all the questions asked by one of them, whom he found later to be the attorney of Rogers and his trustees, whose purpose it was to secure information that might be used against the unfortunate inventor in a legal process. ³⁴

After the failure of Parker and Rogers, Rumsey wrote to West and to Morrow that he found himself in a "very disagreeable Situation, that grew more and more uncomfortable every day as debts increased and Creditors grew impatient, and friends began to Cool." Just as it seemed inevitable that the inventor's career in Europe should end in a debtor's prison, fate intervened "at a moment that was

³³ Letter to G. W. West, September 12, 1791, *McMechen Papers*.

³⁴ *Ibid.*

almost the last, in which it Could have given relieff." A large canal was at this time being built in Ireland; and, difficulties having arisen about its construction, the board of directors, consisting of about forty members, determined to send to England for an expert to superintend the work. "The Earl of Carhampton," wrote Rumsey, "who was then in London, was desired to make enquiry for a proper person for Such an undertaking, and behold (from among the hundred thousand that profess to be Engineers in this Kingdom) he pitched upon me; after attending him several times, I received my instructions, with letters the sixth of May for Dublin, at the Salary of ten pounds Sterling per day, till I should return."³⁵

Before accepting the offer of Lord Carhampton, however, it was necessary for Rumsey to suffer the humiliation of applying to his creditors for permission to go to Ireland. On the advice of his friends, Bailey and Vaughan, he waited upon Maitland to inform him of his intention to leave England for a time. Maitland then wrote to Rumsey's advisers protesting against his leaving. These letters brought spirited replies saying that they still advised his going, and that neither he or any other person had any right to stop him. Though Rumsey set out on his journey on the sixth of May, owing to bad weather and to the circuitous route that he took in order to see all the canals in England, he did not arrive in Dublin until the twenty-fifth.

"It would be a history," says the inventor, "to relate the particulars of the Journey, which was attended with many Scenes attended with many pleasing, indeed flattering, Circumstances, and were Crowned with Success in the End; yet great and many were the tryals, and agitations,

³⁵ Letter to Charles Morrow, August 23, 1791, *McMechen vs. Rumsey Papers*, Virginia State Library.

that I had to Encounter with, in the accomplishment of my undertaking—It was not an easy task for an Orrator Such as I am, Contious of inabelity, in language and want of fluency of Speetch, to Explain to the potomack Company my Sentiments upon the navigation they were upon; Judge then what must have been my Situation, when ushered in to hold forth a techneial language, to upwards of twenty, Imperious, and no doubt Learned Lords, Knights, &c! who had been worked up into the Expectation (as Some of the Fecetious toald me) that I could create boath Clay and Stone!”³⁶

Having completed his work at the end of forty days “to the General and Great Satisfaction of almost every person Concerned,” Rumsey returned to England, but not to London. He went to Liverpool where he kept his retreat a secret to all but faithful Wakefield whom previous to his departure he had made his agent, as he “had got quit of his partner.” Wakefield had lent Rumsey all the money he could raise, and had also borrowed £100 for the inventor and thus saved him from “Stopping business in London at all.” While “lying upon his oars” during this temporary exile spent in Liverpool, Manchester, Chester and other places, Rumsey was far from idle. He invented a mill upon principles entirely new. This invention he believed saved him from destruction, “as previous to that,” he wrote his friend, West, “my opponants in London acted in the most hostile manner possible haveing heard that my business was done in Ireland therefore Expected Soon ‘unconditional Submission’ . . . A Change of features in affairs however made it necessary for them to depart from that Proceedure,” for while at Liverpool he had made a conditional contract with some

³⁶ Letter to Charles Morrow, August 23, 1791.

gentlemen at that place to erect a mill and have an interest in it. If his partners refused his offer respecting their affairs, he was immediately to receive three hundred pounds from the "Liverpool gentlemen" to get a patent and pay the debt that most depressed him at London. On his partners' hearing what Rumsey had done "and finding that delay might be very dangerous the alarm was sounded, and a general Council held;" and his terms were "acceded to in toto," as he "had declared that nothing short would be accepted." Much to Rumsey's gratification "the haughty Mr. Maitland was himself by letter" obliged to guarantee the payment of Rogers' note to him for £275-5s. "before the business could be closed."³⁷

As soon as affairs had been adjusted between the inventor and his partners, he returned to London, and they established an office with Mr. Wakefield as "clark" and a shop of their own, employing from twelve to fifteen hands.

After some experiments with mills "the old task of applying Steam to the Columbian Maid" was resumed. During the nine months that she had been laid aside, the machinery had become so rusted and otherwise damaged that it was necessary to take it all apart.

In the meantime Rumsey had other worries than those connected with his steamboat project. In reply to a letter from Morrow, reporting some youthful indiscretion on the part of his daughter Susan, he expressed the anxiety of a devoted father whose chief concern was the well-being of his loved ones:

I am much obliged to you and my Sister for your friendly Solicitude on account of my Child, and hope that you Continue it in spite of any indulgences She may meet with to the Contrary for be assured that I highly disapprove of her going

³⁷ Letter to G. W. West, September 12, 1791.

to any public place, what ever ; without a very particular acquaintance being with her in which case I have no objection, but would lean to a moderate indulgence, of what extent I now leave to your selves the Single Circumstances of Suckey's age, and Situation, has given me more uneasiness than all the difficulties I have met with besides, on you and my Sister ware my hopes founded, should you relinquish your authority, or she refuse to obey, I should consider her as lost; not from bad example but from the indulgence I am well assured she will receive, I therefore beg and trust, that you will do everything in your power to have her to Conduct herself with propriety; if She Should not, america Shall never See me more!! for it is for my Children I labour & therefore was it to happen, that they Should not deserve my Endeavors, in their favours; I would never wish to See them again as nothing Could hurt me so much as their disgrace. I shall write to boath Polly and Suckey by this oppertunity, and I shall urge a Change in their Conduct, the ensuing winter which I hope will be attended to, if it is not, I shall take measures (if not too late) to prevent the like from ever happening again.³⁸

We next hear of Rumsey through a letter to Charles Morrow from Joseph Barnes, who was then living in Philadelphia. Adam Frailey, who delivered the letter, later married Susan Rumsey.

Philad, Jan. 29th, 1792

Dear Sir—

These Lines will be handed you by Adam Frailey, a young man who came recommended to me by Jacob Smith as an ingenious Mechanic, he is professionally a mill-wright, and is to execute the work of Major Hight's mill upon the principle of reaction, in which are to be two Machines, I have given him assurances of patronage, on my receiving satisfactory advice of the completion and Success of Said mills; the essential parts of the aparatus are to be made here.

The committee of Congress appointed to bring in a Bill to amend the Patent System have not made report, however

³⁸ Letter to Charles Morrow, August 24, 1791.

they promise me it shall soon appear; From what little I can discover, the report of Said Committee will not meet my Ideas, but I will attend to its passage through the lower house, and, if it Shall be deficient, get my friends to amend it.

The 16th instant, I recd. a Letter from our friend J. Rumsey dated London Nov. 3d. 1791—in which his apology for not having so Long written to me is, his not having had any matter of importance to inform me. No important event had taken place; he is passive on the subject of the Steam Vessel; he observed that his partners have for some time payed up their quotas of the expenses, but he fears there is but Little probability of getting any of the purchase money, till the Machine shall be made productive an[d] yield it; he adds, that his difficulties were much Lightened, but in consequence of his not having then got any Machine in motion which was productive, not entirely removed.

He, further, adds that the hopes of the Rumseian Society here must in future depend on their Liberality, because In his Last Patent, dated Augt. 24-1791-he has Specified Mills and Engines So far Superior to any of his former as to render them comparatively, of but Little value; In consequence of which he requests the mill proposed at New york to be Suspended 'till he forwards an improved Machine for that purpose.

He, further, adds, that he was on the point of trying a Mill on principles entirely new, of the result of which his next in a few days should inform me.

He observed, that, he used to think he was more unfortunate than others, because he met with more impositions from his fellow men, but, almost too late he finds the truth to be his own credulity in, and want of a competent knowledge of mankind, which, he observes, the City of London is an excellent School to teach.

He informed me he had not Since Buel Left London, recd a Line from him, which together with Some disagreeable things which he has Since heard is Sufficient grounds to Suspect he (Mr. Rumsey) is once more deceived, however, Mr. Rumsey observes, if the result Shall be, that Buel has not acted with propriety, or has done any thing contrary to

Mr. Rumsey[’s] interest, he will make America too warm for the [torn] of Buels views.—

With the purest motives of respect

I am Sir

Cap. C. Morrow

your hum. Servt.

JOSEPH BARNES.

P. S. Best respects for Mrs. Morrow, and Love for the children, particularly Little polly for whom I feel sensible emotions—Likewise, respects to Mrs. Rumsey, & friends.

J. B.³⁹

After a long silence, due, no doubt, to the fact that he had no good news about which to write, Rumsey wrote to Morrow:

London March 30th 1792.

Dear Char’les.

In november Last I received your Several Letters dated at Shepherdstown in July ’91 and on the 27th day of december I received your letter of 22d of novr. 91 written at philadelphia. I Sincerely thank you for the kind concern you express, through the whole of them, for my past misfortunes, and future wellfare, and trust that you will believe, that I have your interest and happiness as much at heart, as you have that of mine. you Seem to be frightened at the nature and complications of my affairs, and was no doubt more so when you received the letter forwarded to you for, Mr. West in novr. last; but do not Let these things make you any longer uneasy, they are but the natural occurences, that all men in my line of life may expect to meet with, especially in a city that may (not unjustly) be called the capotal of the world; of course possessed with a great proportion of all the knowledge thereof, without much of its Virtue, on which account it is Soon determind after a man is broght upon this theatre whether he is fit for an actor or not; I have So far passed muster, tho the part I have had assigned me as yet has been such as (only) to keep me in view Rather than to make me

³⁹ *McMechen vs. Rumsey Papers*, Virginia State Library.

Conspicuous and notwithstanding my discouragement has been great indeed, from the difficulties that have Constantly been heaped upon me yet I do not Loose heart, finding that "my back is always equal to the burthen that I have to bear"!!! and therefore (thogh unhappy enough) am not in so miserable a Situation as you Seem to fear; my unhappiness is only at intervals when my philosophy and fortitude forsakes me, which is not oftener now, not withstanding the turbulence and magnitude of my persuits; than when my greatest want, was a grist of your indian Corn without having the money to pay for it!!!!

After So long a preface your mind will in some degree be prepared for any kind of news, I Shall therefore not hesitate to Say at once that my affairs at this moment are not in a more favourable train, than when I wrote you last, which has been the true cause of my remaining So long Silent, hoping every week that Came (for Some months past) would put me into possession of the means of being independent at least in this land of exile, which would lead to my turning my eyes (once more) towards my own country; but alas my weeried patience must brace up, to face another long year, before I can even hope for that pleasure. Then (and not before) you may expect me!!! as I have determind by that time to force my business here to an end of some kind or other; It might with certainty (Should I live) be a prosperous end, had not all my connections here as well as my one [vaunted] *patrons* in America, been *Laches*, instead of *Liberal disinterested men*. Characters by the by that have no existence, except in Idea!!! . . . my Steam Vessal, from the poverty of the concern, has laid by the walls, nearly, for the last six months, not withstanding that Very little work (besides repair of damages recevd by laying by) would make her ready for the experiment; that would not fail of Success, that would entitle me to receive from my partners £2,500 Sterrg. But what of that Success? If they have not the ability and inclination to pay me, they already owe me, for the new mills that I have Completed, upwards of £3,000 Sterrg. yet not a farthing of it is to be had, promises and prospects of receiving a Considerable part of it is always before me, but the Means of Maturing them never appears. Thus you See (as through all my life) I am obliged

to live on hope, almost, alone: which at this moment is but very faint as it has become quite uncertain when the business (which is now but feebly carried on) must now in the Course of a few days once more Stop! for want of Supplies of money to carry it on: how it may be is uncertain, yet Certain it is that a few days must bring Changes of Some Sort, as I am determined to proceed [*torn*] short time longer, without something Substantial Should Come down; for like all projectors I have, resources in other Schemes, which I this day expect to obtain a patent for, that will be put into the hands of persons for execution whose Situation with respect to money matters will make their efforts (to bring my new plans forward) much more efectual than ours [?] has been in bringing forward the old ones:

I am very sorry that trade proves So dull with you but don't let that discourage you, Something will turn up as advantages, or it will revive: I wish you Could Sell your Property, goods and all; for a good farm for after all is said and done I am Satisfied it is the most Comfortable life to be a Contented farmer! It is in that way I hope to end my days! Remember me kindly to all my freinds, particularly to my sister, who is so much interest in my happiness; and [*illegible*] that I remain your Sincere and much obliged friend &
 Humbl. Servt.

JAMES RUMSEY.⁴⁰

To Dr. McMechen, he wrote:

London April 15th 1792

Dear Sir,

Near the end of November last I received your favor of the 14th July 1791, wherein you tell me that you had "received two letters from me since I had left America," I believe that is all (before this) that I have written to you, and hope that you will not ascribe the smallness of the number to neglect, or want of friendship: as I can assure you that neither was the cause; But my having written frequently and, prety, fully to Capt. Morrow, respecting my proceed-

⁴⁰ *McMechen vs. Rumsey Papers*, Virginia State Library.

ings here, with a request to communicate the same to you (among other friends) made me conclude it was unnecessary (to say nothing of the aversion I have for writeing one thing over and over again) to repeat the same to you and in this light (tho it is indirectly) I have written to you, as often as to any friend that I have.

Believe me that I am much and most Sincerely distressed by the account you give me of the disagreeable situation that you ware in when your letter was written; but I hope and believe that you had only taken a View of the dark Side of your Situation, & trust that the fear you expressed of things getting worse with you, was more ideal than rail! I too often myself see danger through a magnifying glass, It is therfore that I am experimentally enabled, to Judge of your Situation by my own! you mention the £1000 worth of goods that I sent to Capt. Morrow, and the £100 stg. I alloted for you; It may therefore not be improper to say Something respecting them least you (for want of more accurate information) should have some wrong impressions relative thereto; when I made the sail of the patents here, I was to receive £1000 in goods and £1000 in Cash, on finding that the latter was not easy to be come at, I (therefore) agreed to take £800 for it, in hand; you know how unfortunately the whole of that sum, fell into the hands of that scoundrel, Wynkoop who I then expected (as I had taken up his Bills that other ways must have been protested) would repay the whole £1000 which I directed to be disposed of as follows £600 Sterg. to the Society (which sum they had advanced to me, £100 to you £50 each to Ned & my wife, and the remainder to Mr. Barnes, the Villian paid none of [torn] therefore no more need be said respecting it, at present, The £1000 Sterg. worth of goods I sent to Capt. Morrow to be sold upon, and for, my own account; to indemnify me for the expenses I had been at, and account of the business here; which at that time (say nothing of my Servise) was upwards of £750 sterg!!!! and now is more than double that Sum! all this over and above the £600 furnished me by the Society from which you may Judge (having had no resources) of the enormous Sum that I (constantly have and) now owe. View me thus loaded with debt, in a Strange Country, Conected with broken men; and pur-

suing projects, in the Success of which, but few believe. Compare this with your own Situation and bless yourself that you are yet Liveing in the peacefull shades of Berkley! tho on but a Scanty subsistence. I have frequently been in the prisons here, on purpose to make them familiar to me.' as I have long expected that one of them must eventually become my abode; I will not discribe them to you; they are too horrid for your contemplation; if however you should dwell upon the Idea, conceive a man shut up with thousands of hardened & unhappy wretches, without the allowance of even bread and water to Subsist on! believe me this is Literally true! and to add to the horror be assured that a man, the moment he is Locked up, is no more thought of, or sought after than if he was in his grave! Capt. Mor[row] will inform you with the success I have lately had with one of my new mills which however has produced no pecuniary relieff, one of my partners being much worse than nothing (with respect to property) and the other scarcely never to be seen, is but cold comfort; after four years absence from home. the Business has for some time been totally at a stand; how it will end, to use Barnes' expression; "heaven only knows." I am determined however as soon as I possibly can, to bring the whole to an end; of some kind or other, as I find it impossible, any longer to proceed without better support; this you will Say is a hard lot; especially [torn] time when I have (according to my agreement) [torn] to me, more than £3000 sterg I have long since Intimated to Capt. Morrow to Let you have any money, or goods that you might stand in need of; which no doubt he will readily do; I therefore trust that you Cannot suffer while I am able to furnish you with that resource which you very well know is all that I have in the world, and that it will ever give me pleasure to divide it with you, which I Cheerfully will Should desperate events not deprive me of it. give my best respects to Mrs. Mc-Mechen and be assured that I remain your Sincere friend.

JAMES RUMSEY.⁴¹

The months went on, and the Columbian Maid was so

⁴¹ *McMechen vs. Rumsey Papers*, Virginia State Library.

near completion that the day was set for trial. At last it seemed that Fortune smiled upon Rumsey and promised him success and such honor as has seldom been bestowed upon an inventor, for the weary years of struggle were apparently at an end, and his wish to return to "the peaceful shades of old Berkeley," to his family, and his friends had every prospect of fulfillment. But instead just as his cherished dream was about to pass into reality, he was called to go into that far country from which there is no return—a fairer country than even the lovely Shenandoah Valley. An unfinished letter written by Rumsey to his friend West, was his last message:

After writing some of the news of the day and of his struggles against difficulties, he continued:

Since that arrangement, the business has moved feebly on, the vessel was the principal object. In September we put her into dock, much out of repair; about the middle of November we took her out, almost every thing ready for experiment, for to try which we fell down the river, near to Greenwich, where we were making preparations, and tried our boiler, which answered to admiration, and in two or three days should have had the whole ready but for an accident that happened to the vessel on the 21st of November. She was made fast, by consent of the captain, to a ship, (belonging to a charity society, called the Marine Society;) a haughty member of the society came on board and ordered the captain to have her cast off. This order was put into execution upon an ebb tide, and our careless, worthless master (worse than tory) let her go on shore. I was on board an hour after, but it was too late; she lay down as the tide left her, and unfortunately upon the said ship's anchor, and some piles that were driven round it, which, as the tide went down, went through her bottom and made holes so large that the water flowed in, and prevented her from rising when the tide rose, which at high water was eight feet over her dock. In this situation during five tides, on the sixth we got her

afloat, which cost for workmen, boats, etc., about 24 guineas. We have since lost some time in cleaning and repairing the damages she received upon deck, and within, but are not as yet certain whether or not we shall be obliged, in consequence of this disaster, to put her into dock to examine what damage is done to her trunk and bottom, besides making the holes good that we have stopped.

Mr. Parker and Mr. Rogers enter; I shall, therefore, lay by my narrative for the present.

December 18, 1792

It is, my dear friend, six days since I laid by this letter; it should before now have been attended to, had any opportunity offered; as there has not, I need not apologize for the delay, but will now take up the subject where I left off. We did not get ready to try our engine till Saturday last, when it worked with very good success. I think it was internally very perfect; a spring placed on the outside that opened the steam valve proved something too weak to perform its office handsomely; Lenaker had to help it a little at each stroke; the vessel went forward against the tide, and pulled hard to get from her moorings. Mr. Rogers was on board, and was highly delighted at the performance. Yesterday he met Mr. Parker on the stairs, and gave him joy at what he was pleased to call an experiment, and wanted invitations sent off to the Duke of Clarence, Sir Joseph Banks, and others of the Royal Society, and, the people inflated with insanity, talked of instantly putting engines upon ships of the navy against France, (to protect the cause of despots against that of liberty, my friend;) they talked of 50 to £60,000 as nothing to what they expected to receive. They appointed me my station to superintend the execution of the work; Mr. Rogers was immediately to take a genteel house near the King's dockyard, where he was to superintend the business. I may add also, he was to have 300£ a year, (as that was the sum he told Mr. Parker some time back that he expected.) I suppose he intended that I was to work for nothing under a clause of our articles that says, I am to try the experiment at the expense of the proprietors. It was with difficulty that I kept them from putting this wild scheme into execution immediately, and to wait till the experiment is actually made.

Between ourselves, my friend, I have very little doubt of success; but it is really insulting to force me and the poverty of the business in this manner; it is now more than 200£ in debt, and it is not a week since they declared they could not furnish money to support it without my assistance, and now they would run me head over ears into absurdity, difficulty, and debt; but the bait shall not take; I shall push forward the experiment for the sake of my character, but have suffered too long to enter upon any new schemes that will run me in debt. They must first secure to be paid to me what they already owe me on account of the mills (which have all performed to agreement,) and must deposit as much in a banker's hands as will carry their part of a new undertaking into full execution before I shall be brought to move, and then not a person to look after the business for nothing, and gave £300 per year to be overseen in this manner. I shall explain at a proper time, but the experiment must be made on the vessel first. . . .⁴²

The last chapter in the tragic story of Rumsey's life is told by his friend Wakefield and by John Brown Cutting.

On December 26, 1792, Wakefield wrote to West:

(Unhappy the task that sincere friendship here imposes — our friend, alas! is no more.)

On the day the last part of this letter was wrote, he received a note from the committee of mechanics, requesting his attendance at the committee room of the society of arts in the Adelphi, on the evening of the 20th, to substantiate the utility of a model which he had sent there ten months ago for the equalization of water on water-wheels. He drank tea at home about 7 o'clock that evening, and was, as he had been for months past, in very great spirits. After tea he went to the committee room, and in due course delivered what all the members afterwards expressed rather a lecture on hydrostatics than an explanation of the model, to the admiration and satisfaction of all present; after which he was

⁴² *National Intelligencer*, November 7, 1816.

busy in wording resolutions to be entered in the society's book, when he was perceived to lift instinctively his right hand to his temple and complain of a violent pain, which were the last articulate words he spoke. Every necessary medical assistance was at hand—Dr. Austin, Dr. Baker, etc. He was taken to the Adelphi hotel, when he expired about a quarter past 9 o'clock the next evening; remaining nearly the whole time sensible, but almost speechless. Every respect has been paid to his remains by his friends, several of whom attended at his interment at St. Margaret's, Westminster, where I had him conveyed on Monday evening last. I fear his affairs will be too intricate to make it safe for any one to administer, as he has left no will, at least in England; powers of attorney must therefore be sent, or some one come legally authorized. I have sealed up his papers, etc., which shall remain till I hear further from his family. His family may probably be at a loss how to proceed; I would therefore recommend you to write to them on the subject, and earnestly request persons to be appointed who know the parties with whom they are to settle. Every exertion in my power in the interim for the benefit of his family shall be made. It is my duty to him, in whom I had a friend so valuable, that our endeavors were equal, our wishes reciprocal, and our persons for years past almost inseparable. For him I lament; for the world I regret; but for his family I mourn. Any commands you may have in this country that I can execute I hope you will make free to order.

Sir, your obedient, humble servant,

R. C. WAKEFIELD.⁴³

John Brown Cutting wrote to Jefferson:

London 24 Decr. 1792.

Dear Sir.

On friday evening last died Mr Rumsay of Maryland. On the evening before while sitting with some members of the Society for encouraging british arts sciences and manufactures (who from the high opinion they entertained of his genius, had frequently consulted him at their meetings) he

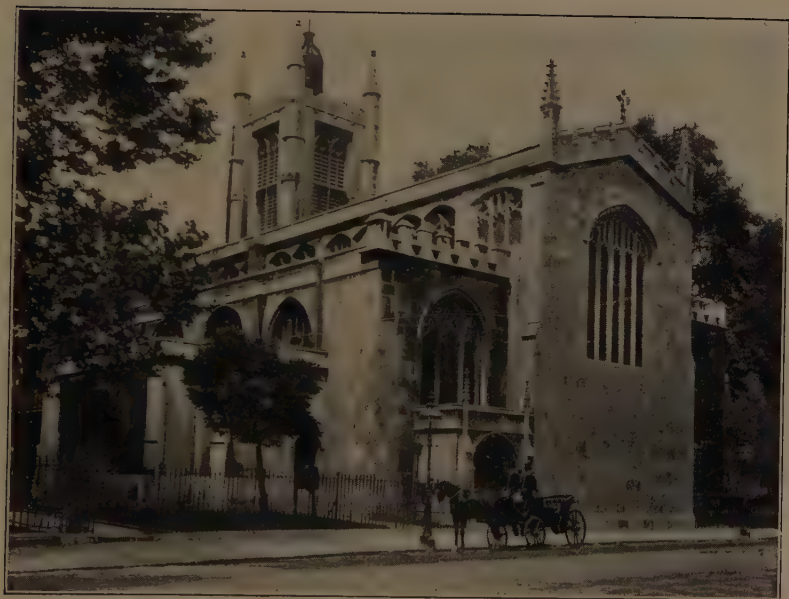
⁴³ *National Intelligencer*, November 7, 1816.

complained of a sudden pain in his head, and resting it on his hand on the table, in an instant became apparently lifeless. Medical aid being immediately had, a vein was open'd & symptoms of life returned: he was put into a warm bed under the care of a good nurse who administer'd the remedies which were prescribed by the most eminent of the faculty. But his disorder baffled their skill; and tho' nothing was left unattempted that could be desired to restore him he expired in a few hours, without struggle and without having recovered the free use of his speech or faculties.

As the seat of his malady was in his head — after his death it was open'd. What I had before conjectur'd now became confirm'd — that overplied with energies of thinking some of the vessals of the brain were fairly worn out. Accordingly there had happen'd a rupture of one of them — which was manifestly the immediate cause of his death. To-day he is to be decently inter'd near Westminster

Unaided by education — unacquainted with those rudiments of science that are furnished in books or bought by masters — his mind seem'd to be as if it were embued in the elementary principles of mechanics. Of the most intricate combinations those he had almost an intuitive perception — Theories the most complicated sprung up spontaneously and correctly in his thoughts and by dint of incessant research invention and experiment he wou'd reduce them to practice — and shape them to purposes of utility. Besides several subordinate proofs of his ingenuity and strength of original invention he has finish'd his nautical steam-engine. He had completed its mechanism — and ascertained beyond all doubt its important and effectual [?] in the impulsion of Ships through the water — privately in the presence of a few of his intimate associates. On the very day of his decease Sir Joseph Banks, and others eminent for their skill and reputation in science were to have been invited to witness an exhibition of this Experiment. I trust I have good grounds for believeing that a discovery that may be rendered so beneficial to navigation and especially to the navigation of our immense and rapid rivers will not become extinct but survive the Inventor.

In a word in Mr Rumsay we have lost a citizen the vigour and extent of whose intellect in this particular depart-



St. Margaret's Church

ment of most useful science has seldom been surpass'd — and according to many of the best judges has very, very seldom equal'd.

I have the honor to be
with Sentiments of
true attachment & respect
Your Most Obed't Servt.
JOHN BROWN CUTTING.

Tho. Jefferson. S. S. U. S.⁴⁴

A few weeks after Rumsey's death his boat made a successful trip on the Thames at the rate of four knots an hour.⁴⁵ It is said that it "was driven many times on the Thames." Though the high moment of achievement was not to be his, he had the compensation of passing out of life at a time that he had every promise of the fulfillment of his dreams. He also was spared what would have been his "crown of sorrows," the knowledge of the death of his best loved friend, Charles Morrow, who died in November, 1792.

The death of Rumsey and that of his representative, Charles Morrow, left the inventor's affairs in a chaotic condition in both England and America. Joseph Barnes went to London to effect a settlement of Rumsey's affairs abroad. Thomas Jefferson wrote to Charles Pinckney, our representative at the Court of St. James, Monsieur Le Roy, of Paris, and Gouverneur Morris, then the American Minister to France, asking them to render Barnes every possible assistance.⁴⁶

On May 15, 1794, Matthew Boulton wrote from London to James Watt, who was then at Heathfield:

The American Rumsey being dead, his friends in Amer-

⁴⁴ *Jefferson Papers*, Library of Congress.

⁴⁵ *Bache's Daily Advertiser*, April 13, 1793.

⁴⁶ May 29, 1793. *Jefferson Papers*, Library of Congress.

ica have sent over an American engineer to take possession of his property, which consists of a patent or two & some debts. I think his name is Brand—he called upon me this morning, to beg me to give him in writing an acct, of what we had done on expts made upon the application of rowing boats by steam, all of which I evaded & am to see him & Rumsey's partner next week to talk over the matter.⁴⁷

On March 9, 1795, Joseph Barnes paid Rumsey's partner, Daniel Parker, the sum of £86, which Rumsey owed for the money that had been advanced to pay the expenses of constructing his boat.⁴⁸

From the letters that Barnes wrote to Thomas Jefferson one learns that he remained abroad for a number of years. In 1803, Jefferson appointed Barnes consul to Sicily. Although he had been very insistent about securing the appointment, he never assumed the duties of his office, but appointed pro-consuls to act for him. On April 17, 1808, he wrote to Jefferson of his intention to return to America:

In consideration of the Season having So far advanced, I Shall not depart directly, but about the first of May for Sicily, hence, after adjusting Some important and essential Matters, I mean to embark for my destination early in july and pass the two warm months at Sea; and to arrive in Virginia in Septr., and have the high gratification of making my personal respects to Mr. Jefferson previous to the Election in Octr.⁴⁹

Edward Rumsey, executor of the inventor's estate, must have found it very difficult to obtain money to pay the numerous bills that were presented to him.⁵⁰ They show that Mrs. Rumsey was somewhat extravagant in making

⁴⁷ *Boulton and Watt Letter Book.*

⁴⁸ *McMechen Papers.*

⁴⁹ *Jefferson Papers.*

⁵⁰ See Appendix C.

purchases, whether she was buying food, clothing, or such luxuries as wine and other alcoholics. To add to Edward Rumsey's troubles, Dr. James McMechen, with whom James Rumsey had formed a partnership, on November 10, 1784, brought suit against the executor for his share of the profits that he alleged that Rumsey derived from the sale of various inventions. Edward Rumsey, however, showed that McMechen had not paid any part of the expenses incurred by Rumsey, and that according to the terms of the contract he owed the estate £1250.⁵¹ It seems, however, no effort was made to collect this sum.

In 1801, when Edward Rumsey presented his account of the estate of his brother to the court of Berkeley County for settlement, it was found to be indebted to him for over £54. Thus we see that Rumsey's wife and children were left penniless.

Rumsey's family later went to Kentucky where they spent the remainder of their lives. Susan Rumsey, about 1794, married Adam Frailey, who was killed several years later while working on the "Potomac Seat Mill."⁵² She later married Jacob Skiles, who had extensive holdings in Virginia and Kentucky. Among the children born to this union was James Rumsey Skiles, who, when he grew to manhood, spent a fortune in promoting steam navigation on Green River. Rumsey's other daughter, Clarissa, married Mr. George D. Minor, of Kentucky.⁵³

Rumsey's only son, James, was deaf and dumb. In 1839, when an effort was made to secure a grant of land or money for the heirs of the inventor, Edward Rumsey, con-

⁵¹ Answer of Edward Rumsey to Bill of Complaint. *McMechen Papers*.

⁵² See note on plan of the Potomac Seat Mill, *Adam Frailey Papers*, Library of Congress.

⁵³ See Appendix D. Letter of Susan Rumsey Skiles.

gressman from Kentucky, in a speech in the House of Representatives, spoke thus of his cousin:

The one to whom I allude is the only son, the only living child, of James Rumsey. While his father was in England devoting himself with fatal intensity to the completion of the steamboat, that son, by a malignant disease — scarlet fever — was, in early infancy, deprived of the faculties of speech and hearing. Talented, ingenious, ready and dextrous at various mechanical employments, he is now earning a scanty subsistence by daily labor; but, with the improvidence common to persons in his condition, making no preparation for approaching old age. To the support of the evening of his life I have thought his country might contribute something without violating any principle of wise policy.

Mr. Speaker, I have stood upon the banks of the beautiful river which washes the broad border of my own beloved State, and contemplated the majestic steam palace in her proud career, exchanging with rapidity and cheapness the productions of different climes, conveying with comfort and expedition the travelling public, giving new life and energy to commerce, to agriculture, to national industry and enterprise: I say, Mr. Speaker, I have stood in the musing mood upon the shore of the fair Ohio, and viewed the noble steamer moving victorious against wind and current,

“Walking the waters like a thing of life”

and then reflected that the only son of the man who first seriously attracted the attention of the skilful and ingenious to the subject, the only son of the man who first yoked the power of steam to the car of commerce — the only son of the man who first by actual trial, proved its practicability — the only son of the man who, in his arduous struggles to perfect and present to the world the steamboat, expended his little fortune, banished himself from his home and his country, and, in spite of all obstacles, was pushing onwards to success, when arrested by sudden death. When I have reflected that the only son of this man was toiling for his daily bread, smitten by his God, and neglected by his country — when I have contemplated that and this spectacle, the steamboat and the unfortunate son of its inventor, feelings, emo-

tions, reflections, have crowded upon me of a character which, as a patriot, a philanthropist, and a Christian, I acknowledge it was improper and sinful to entertain. To the support of that stricken one, I have thought his country, abounding in resources, with more hundreds of millions of public domain than she can squander in ages, might contribute something more substantial than a medal, without extraordinary stretch of liberality. But it is not for me to solicit it, even for him. I shall be gratified, deeply gratified, if the Government of his country shall honor the memory of his father for all his sacrifices and all his services by the adoption of this resolution.⁵⁴

The resolution to which Edward Rumsey referred was the following:

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be, and he is hereby, requested to present to Jas. Rumsey, Jr., the son and only surviving child of James Rumsey, deceased, a suitable gold medal, commemorative of his father's services and high agency in giving to the world the benefits of the steamboat.⁵⁵

At the conclusion of Rumsey's speech this resolution passed the House by a unanimous vote.

However, the attorney for the Rumsey heirs, James Johnson, who was desirous of obtaining a grant of either money or land for his clients, prevented the resolution from passing in the Senate.⁵⁶ An effort was made in 1842 and again in 1846 to secure an award for the heirs of James Rumsey. On March 5, 1846, the committee of claims to whom the memorial of the representatives of James Rumsey had been referred, reported:

It has been deemed the best policy, considering the

⁵⁴ *Congressional Globe*, Vol. VII, Appendix, p. 294.

⁵⁵ *Ibid.*, p. 291.

⁵⁶ See *Johnson Manuscript*, Maryland Historical Society Library.

newness of our country and the smallness of its revenues, and for other reasons for the government to rest satisfied with such inventions as its citizens depending upon its individual resources, may find it to their honor or to their interest to develop, reserving to itself the privilege of buying the right to use such patents as the interests of the country may, to Congress, seem to demand. From this policy the committee do not feel warranted in recommending a departure.⁵⁷

The committee, therefore, recommended "that the prayers of the petitioners be not granted." Consequently, the unfortunate son of the man who gave his life that the world might enjoy the great blessing of better facilities for transportation, did not receive even a gold medal. What a hollow mockery such an award would have been!

In his speech, Edward Rumsey referred thus to the difficulties encountered by the inventor:

It will be recollected that at this early period the mechanic arts, and more especially, that branch embracing steam machinery, were in their very infancy in America. There was no steam machinery in it. There were no practical artists capable of fabricating any. Even in England, although some progress has been made by Watt, the steam engine, and its great appendage, the boiler or generator, were rude, imperfect, comparatively inefficient. Rumsey had to invent, to organize every thing—to procure from different workshops, and, though not a practical mechanic, often to fashion and modify with his own hands the various parts of a work even now difficult and complicate. From the inexperience of workmen, and the total absence of all tools and machines now collected in engine factories, his progress was necessarily expensive, slow, embarrassed, and all execution so imperfect as to preclude the possibility of more than partial success. . . . Great inventions, requiring complicated machinery, are never perfected and seldom made eminently useful at once. High excellence is rarely attained until the mechanical world has tendered its offerings—poured in its

⁵⁷ Report No. 403, House of Representatives, 29th Congress, 1st Session.

contributions through a long series of years. Time, labor, money, repeated modifications and experiments—the conjoint suggestions of practical and theoretical mechanics, are all prerequisite and auxiliary to the perfection of a great invention.⁵⁸

It is not strange then that Rumsey's boat lacked the perfection of the steamboats of more modern times. His method of jet propulsion had one defect that apparently could not be remedied, the great friction caused by the reaction of the water. Later inventors, including Fulton, used other principles many of which seem to have been derived from John Fitch. Had Rumsey had as many years as either Fitch or Fulton in which to exercise his inventive genius, he would in all probability have produced a boat that would have been a commercial success. Think of what he did achieve in the few short years that were allotted to him! Without a scientific education, without adequate funds, without influential friends, without skilled workmen, without ever having seen a steam engine, he not only built an engine but invented a tubular boiler that was conceded to be an improvement on any boiler then in existence. One needs no further evidence of the merits of this boiler than the fact that Boulton and Watt were willing to form a partnership with Rumsey. Besides several private trials, his steamboat made two public trips, in the first of which it ascended the Potomac at the rate of three miles and in the second increased its speed to four miles an hour. His only rival in this enterprise was John Fitch, who maintained that his steamboat, in 1787, traveled against the tide at the rate of two miles an hour, and who used a boiler that was very heavy and so large that it took up most of the space of his boat. It must be remembered, too, that Fitch worked on

⁵⁸ See *Congressional Globe*, Vol. VII, Appendix, p. 292.

his boat not in a remote village as did Rumsey, but in a city, where it was convenient to secure both workmen and supplies. He also had the assistance not of village blacksmiths, but of a mechanical genius, Henry Voight; and even then an expert had to be secured to build an engine. Moreover he had the advice and suggestions of many of the "first geniuses" of Philadelphia, who were members of his steamboat company.

James Rumsey had the great disadvantage of having to work on his second boat in a strange country, where he was hampered, by unskilled workmen and by lack of funds. When any defect was found in the mechanism of his boat, he had to depend entirely upon his own initiative in correcting it, and yet, in spite of obstacles that would have caused most men to give up in despair, ever mindful of his motto, *Conquer or fall*, he toiled on through the years, and at last completed a steamboat that attained a speed of four knots an hour.

Rumsey's experiments with the steamboat had a larger value than a practical one. As a result of the interest of such men as George Washington, Thomas Jefferson, Horatio Gates, Benjamin Rush, Benjamin Franklin, and Sir Joseph Banks in his steamboat project, the idea of steam navigation was no longer laughed at or scorned. Those who talked of making boats run against the tide without the aid of sails or oars were no longer called crazy, but were listened to with deep respect and were considered men of vision. In other words, the world was becoming steam-minded.

Rumsey's experiments also served the purpose of arousing the interest of other inventors in steam navigation. Had he rendered no other service than to direct John Stevens' attention towards the problems of steam transportation, the world would be his debtor.



The Rumsey Monument at Shepherdstown

It has been the opinion of many persons that Robert Fulton's Clermont was partly the product of Rumsey's genius. Rumsey in a letter to George W. West, is said to have mentioned Fulton as if they were on terms of intimacy.⁵⁹ Joel Barlow and Benjamin West were personal friends of both inventors.

Fulton could not have failed to know of Rumsey's experiments with the steamboat, and probably through them had his attention diverted from art to steam navigation. His biographers have disclaimed any indebtedness, on his part, to Rumsey; but whether he obtained any direct assistance from him or not, he had the benefit of the knowledge of Rumsey's experiments. In an unpublished notebook of Fulton's is a section entitled "Messrs. Parker & Rumsie's experiment for moving boats."⁶⁰ Fulton's first plan of a steamboat was submitted to the Earl of Stanhope in 1793. The first trial trip of his steamboat, in 1803, was estimated to be 2,400 toises or less than three miles an hour—in other words it took Fulton ten years to build a boat and it traveled with less speed than Rumsey's boat in 1787; and fourteen years to build one that attained a speed of less than five miles an hour—thus exceeding only slightly that of Rumsey's boat in 1793. Moreover, Fulton used a Boulton and Watt engine and had the benefit of a knowledge of the principles of the boats of both Rumsey and Fitch. Unlike his predecessors, Fulton had a wealthy patron, and was, therefore, freed from the financial worries that harassed them and hindered them in their experiments.

Through a provision of the War Department Appropriation Bill, passed in 1925, a monument was erected in Bardstown, Kentucky in 1927, at the grave of Lieutenant

⁵⁹ See *Congressional Globe*, Vol. VII, Appendix, p. 292.

⁶⁰ Sutcliffe, *Robert Fulton and the Clermont*, p. 330.

John Fitch, "soldier and inventor." Fitch has also been honored by memorials in Pennsylvania and in Connecticut, his native State. A determined and persistent effort is being made by a large organization to gain for him world-wide recognition as the inventor of the steamboat.

A great celebration was held in 1907, honoring Henry Hudson, the navigator, and Robert Fulton, the inventor. Numerous memorials have been erected in honor of Fulton, one of the most notable of which is in the Hall of Fame, located on the campus of New York University. A statue of Fulton, representing him holding a model of his steamboat, stands in Statuary Hall in the Capitol at Washington, a reminder that his native State and his Country unite in paying tribute to him as the inventor of the steamboat. He is, indeed, one "whom the world delighteth to honor."

Largely through the efforts of the Rumseyan Society,⁶¹ organized at Shepherdstown, February 26, 1906, the legislature of West Virginia made appropriations for the erection of a memorial to James Rumsey, and a stately monument in Rumseyan Park now overlooks the scene of the inventor's great triumph on the Potomac. But James Rumsey, who conceived the idea of the propulsion of boats by means of steam, before either Fitch or Fulton, who made trials of his steamboat before Fitch and Voight had completed models of a steam engine, and who first demonstrated to the public the practicability of steam navigation, has apparently been forgotten by his native State and by his Country, for Maryland has erected no memorial to her distin-

⁶¹ The object of this organization was "to erect a monument or some other suitable memorial to the memory of James Rumsey, inventor of the steamboat." The incorporators of the society were: Judge Daniel B. Lucas, General William P. Craighill, the Rev. Dr. H. C. Haithcox, the Rev. Dr. Charles Ghiselin, and Messrs. H. L. Snyder, William Campbell, W. N. Lemen, A. S. Dandridge, M. B. Baker, B. F. Harrison, and George M. Beltzhoover, Jr.

guished son, and the United States has made no public recognition of the debt that she owes Rumsey for his "high agency in giving to the world the benefits of the steamboat," and in the churchyard of St. Margaret's, far from his home land, far from everything that he once held dear, James Rumsey, pioneer in steam navigation, sleeps in an unmarked grave.

APPENDICES

APPENDICES

APPENDIX A

THE WILL OF JAMES RUMSEY

Being in sound helth, boath of body and mind, I make and ordain this my Last will and Testament. Item: it is my will that all my estate, boath real and personal, shall be divided as followeth, to wit: One-third to my effectionate wife, and the remainder to be divided into four equal shares two of which to be given to my son James as Soon as he shall be of the age of twenty-one years; one Do be given to my daughter Susanna as soon as she arrives at the age of eighteen, or gets married to the Satisfaction and with the approbation of Mary Rumsey, Edward Rumsey, Mary Morrow, and Joseph Barnes; one other Share to be given to my Daughter Clarissa, at the same age and under the same restrictions of Susanna; and the last share, or fourth, to become Edward Rumseys, Junr. at my death. I also ordain him my executor of this my Will. The children to be educated in as ample a manner as the Income of their estates will allow. In Testimony of this my will, I have hereunto set my hand and affixed my seal, this fifteenth day of May, in the year of our Lord one thousand seven hundred and eighty-eight.

JAMES RUMSEY, (L. S.)

Witnessed in the presence of

Benjamin Wynkoop,

Joseph Wynkoop.

Philadelphia City and County, sct.

George Campbell, esquire, register for the probate of wills and granting letters of administration in and

L. S. for the city and county aforesaid, in Pennsylvania, greeting:

These are to Certify that the within writing is a true copy from the original will of James Rumsey, deceased,

duly proved the 25th of this instant, and probate and letters testamentary were on the same day granted to Edward Rumsey, junr. sole executor therein named,) filed and remaining of record in the register's office at Philadelphia.

Given under the seal of the office, this 26th day March, 1793.
ISAAC WAMPOLE, D. R.

At a court held for Berkeley County, the 17th day of September, 1793, this last will and Testament of James Rumsey, deceased, being duly authenticated by the register of the City and County of Philadelphia, was presented to the court by Edward Rumsey, the executor therein named, who made oath thereto according to law, and ordered to be recorded. Certificate is granted him for obtaining a probate thereof in due form: Given Security thereupon, he, with Nicholas Orrick and Smith Slaughter, entered into and acknowledged bond in the penalty of Two thousand pounds. Conditioned for his True and faithful administration of the said decedent's estate.

Teste:

M. HUNTER, C. B. C.¹

APPENDIX B

APPRAISEMENT OF RUMSEY'S PERSONAL PROPERTY

In obedience to an order from the worshipful court of Berkeley to us directed we the underwritten Subscribers being first Sworn have met this 3rd day of February 1794 and appraised Such of the estate of James Rumsey Dec'd as was Shewn us by the Executors—

1 Negroe Woman named mint	28 "	0 "	0
1 Negroe Lad named Bill	36 "	0 "	0
1 Negroe Girl " Silvey	20 "	0 "	0
1 Cow	2 "	8 "	0
6 Windsor Chairs	0 "	18 "	0
1 Rocking Do	0 "	2 "	0
1 Cherry Tree Table	1 "	4 "	0
1 Walnut Do	0 "	5 "	0

¹ *Will Book II*, p. 184.

A quantity of Crockery ware etc.	1	"	10	"	0
3 Beds and Bedsteads	12	"	0	"	0
1 Small Table	0	"	2	"	6
2 Small Trunk & 2 Large Do	1	"	0	"	0
3 Books	0	"	1	"	6
1 Pair Shovels and Tongs	0	"	5	"	0
1 Hymn Book	0	"	1	"	6
1 pr. And Irons	0	"	5	"	0
1 Pr. Flat Irons	0	"	3	"	0
1 Candle Stick Brush and Waiter	0	"	1	"	0
1 Small looking Glass	0	"	2	"	0
1 Table 2 Crocks	0	"	1	"	3
1 Frying pan	0	"	2	"	0
2 Tubs	0	"	2	"	0
1 Churn and pail	0	"	1	"	6
1 Cary & 1 Small pott 1 Dutch Oven	0	"	12	"	0
1 Small Sifter	0	"	1	"	0
4 bread baskets	0	"	0	"	8
2 Small Beef Tubs	0	"	3	"	0
1 Ax	0	"	2	"	6
Tins jugs Case Bottle etc in a closet					
pewter dish	0	"	3	"	0
1 Small Hoe	0	"	0	"	2
1 old Flour Cask	0	"	0	"	2
1 Coffee pott 3 crocks - Small dish	0	"	2	"	0
3 Table Cloths & 1 Towel	0	"	6	"	0

Feby. 3d 1794

106 " 5 " 9

HENRY BEDINGER.

JAMES MASELEY.

JOSEPH McMURRAN.

At a Court Continued and held for Berkeley County the 19th day of February 1794 This appraisement of the Estate of James Rumsey dec'd was returned into Court and ordered to be recorded.

By the Court

Test

Mo HUNTER C. B. C.²

² *Will Book II*, pp. 232-233.

APPENDIX C

THE SETTLEMENT OF RUMSEY'S ESTATE

Dr. the Estate of James Rumsey Deceased in a/c with
the Executor—1796 January 18th

18th

Cr.

P.
CurrencyV.
Currency

	To the amt. of the four last entries, on the credit side for which I never had anything actually in my hands Except Joseph Barry's bond, which yet remains unpaid & the money for the house and Lott stands as stated in the third of these four entries	£ 521-19- 2¼	
	To balance due for money's that actually came into my hands for the Debt due from the Estate of Charles Morrow decd. to the Estate of James Rumsey	£ 561- 4- 8	
		£ 1083- 3-10¼	
1793	To cash paid Henry Fishell	3 " 5 " 0	
" "	Ditto Do Robert Stubbs	0 " 18 " 9	
" "	Ditto John Gooding	0 " 8 " 3	
" "	Ditto pd Saml Meredith treasurer for securing a patent	11 " 5 " 0	
		£ 15-17-or	£ 12-13-7
1799 & 1800	Ditto paid the amount of an execution obtained agt the Estate of James Rumsey by William Mordock	188 " 2 " 8	

Feb 18 "	Ditto paid S. Slaughter for Clerk's notes etc.				
" "	Sundry household furniture cloathing etc. furnished or delivered Mrs. Rumsey at the appraisement value	39	"	0	" 0
	Sundries delivered Mrs. Rumsey in the years 94-95 and 96 as per ac/t rend.	75	"	4	" 9½
	Boarding & Cloathing James Rumsey Jr. He being deaf & Dumb for about 6 years cloathing Clarisa Rumsey 5 years and boarding her 2½ years	90	"	0	" 0
		65	"	0	" 0
1801 Feby	Clerks notes	12	"	4½	" 0
15th "	Cash paid Nicholas Orrick & Clerks note	15	"	1	" 1½
	" Ditto Do on three Journeys to Phila on business relative to the Estate of J. Rumsey decd.	31	"	9	" 10½
	" Ditto pd James Anderson on a/c of Mrs. Rumsey	4	"	6	" 5¾
To amt Brought from page 1-P. Cy.		£	536	- 11	- 7½
	" To [my] commission as Executor of this Estate	47	"	0	" 0
	" To the negroes held by Mrs. Rumsey Viz. Mint — Bill and Silvy	84	"	0	" 0
To ballence due as pr Contra		£	54	- 1	- 1¾

1793	By the amt of my a/ct	P Cy	
May 15th	in the books of Charley Morrow Decd. in part of the Debt due by the Estate of James Rumsey Decd.		217 - 4 - 5
1793	" a payment made to me of this date by the		
May 24	Executors of Charles Morrow Decd.		20 - 11 - 18
Decr. 24	" Ditto	Ditto	15 - 0 - 0
1794			
January 13	" Ditto	Ditto	75 - 0 - 0
14	" Ditto	Ditto	13 - 0 - 0
Feby. 4	" Ditto	Ditto	75 - 0 - 0
Aug. 1	" Ditto	Ditto	66 - 6 - 0
1795			
Feby. 6	" Ditto	Ditto	23 - 10 - 0
Decr. 30	" Ditto	Ditto	33 - 17 - 7
1796			
Oct. 15	" Ditto	Ditto	21 - 5 - 0
			£ 561 - 4 - 8
1795			
July 22	By advances to Mrs. Frailey by the Executors of Charley Morrow Dec'd. per their account rendered		12 - 1 - 18
1796			
Sept 10	Joseph Barnes—Bond taken by the Executors of Chas Morrow Decd. for a Debt due to the partnership of Morrow & Rumsey but which debt said Barnes was priviledged to make by James Rumsey consequently is recd.		

as part of the Debt from
said Morrow Decd. to
said Rumsey Decd.

17 - 17 - 6

Jany 18th By the whole amount of
Advances made by the
Executors of Charles
Morrow deceased to Mary
Rumsey widow of the
said James Rumsey decd.
for the support of her-
self and Children from
the 15th of November
1792 to this date and
which account includes
the one half of a house
& Lott the property of
the sd Morrow Decd. pur-
chased by the said Mary
Rumsey from the Exec-
utors of said Morrow this
property was afterwards
sold by the said Mary
Rumsey and the mon-
ey arising from said
sale came into my hands,
but for which I gave my
bond to the said Mary
Rumsey. and let it be al-
so understood that a
great part of the ad-
vances made as afore-
said to the said Mary
Rumsey by the aforesaid
Executors previous to
my administration on
the Estate of the said
James Rumsey & which
they did in consequence
of general instructions

	from the said James Rumsey in his life-time to the said Charles Morrow—that the said Rumsey's Family should be supported.	409 - .3 - 11
1794 Sept 5th	By Sundry payments of Debts due James Rumsey which payments were made by the Executors of Charles Morrow decd. at & prior to this date per their account and vouchers	82 - 16 - 1¼
		£ 1083 - 3 - 10¼
	P. Currency V. Currency	
	By Ballence Due as pr Debt and brought from page 1 Amount of the first appraisement being household furniture	561 - 4 - 8—448 - 19 - 10
	" Amt. of the 2d Ditto being cloathing & cash from the Sale of one Share in the Potomac Company	22 - 10 - 0
	3 negroes mint, bill and Silvy appraised at Eighty four pounds, but which negroes were held by Mrs. Rumsey and Never came into the hands of the Executor	32 - 5 - 9¾
		84 - 0 - 0
	Balance Due the Executor	£ 667 - 11 7½

In obedience to an order of the Court of Berkeley county to us Directed we have settled the Estate account of James Rumsey Decd. and do find

as above stated that there is a ballance due to the Execution of Said Estate of Fifty four pounds one shilling & one and three farthings current money. Errors Excepted. Given under our hands this 23d day of Feby 1801

JOHN MORROW.
JOHN KEARSLEY.

At a court continued and held for Berkeley county the 24th day of February 1801 This account current of the Estate of James Rumsey Deceased was returned into court and ordered to be recorded.

By the Court

Teste H. BEDINGER C. B. C.³

APPENDIX D

MISCELLANEOUS LETTERS

LETTERS OF SUSAN K. SKILES TO COLONEL JOHN MORROW

Three Springs, Warren Cty Kty. August 2d 1814

Dr. Sir

When my son went to Virginia I requested him to write to you to enquire for my Fathers letters, which I expected was deposited with you amongst my Dear uncles papers, I assure you my only motive was to gratify myself and children, who had a desire to peruse, and have in their possession their grandfathers letters. On receiving a letter from my son a few days past, informing me he had written and received an answer from you, with a paragraph from your letter, I fear'd you had misunderstood the thing & I thought an explanation from me was necessary, which has induced me to trouble you with these lines.

I have six children living, two daughters by my first marriage are married, three sons, and one daughter by my second marriage, the oldest I calld James Rumsey, the youngest Charles Morrow to perpetuate names, and memory of the

³ *Will Book III*, pp. 368-370.

Dearest and most beloved Friends I ever had, remember me most affectionately to your lady, tell her neither time or distance hath obliterated the characters friendship drew upon my heart at an early period; She possesses a large share in those sensations which I believe will be heightened in a world of bliss, when we escape from the present one of sorrow and disappointment. If you please, remember me to my former i[n]timate friends, if any such remain there. I should be happy to receive a line from you if convenient. Believe me Dear sir your ever grateful and affectionate friend.

SUSAN K. SKILES.

Col John Morrow

3 Springs Warren Cty Ky. 24th Jany 1816

Dear friend of my youth,

with pleasure and some degree of confidence I take the liberty of introducing to your notice my Brother-in-law Mr. Minor who calls on you to obtain what information you can give respecting my dear deceased Father's character and Business which we expect you know as much about as any person etc. through Uncle Morrow; the subject which presents many pleasing and painful images to view is once more revived, after being buried in Oblivion and almost forgotten except by one who can never cease to regret the loss of such deservedly Dear and valued friends as my Father and Uncle. A lapse of years generally effaces impressions made in youth, the impressions of Earthly things made in youth are in a gr[e]ater or less degree lasting. Believe me Sir—time, many revolving years have made very little change in my feelings, experience gives firmness and stability to the mind that is tender and generous, but alters not the predominant features of character, my solicitude on the subject in question does not arrive from the desire of increasing my earthly store merely on my own account, for I have an abundance through the bounty of a kind providence but I have orphan children and other connexions that might be benefited, also the respect I feel for my father's Memory, the recollection of his unparalleled difficulties makes me Solicitous the Subject should be investigated, with respect to his valuable inventions. I discover from examining his letters and papers, in Uncle Rumsey's hands that the Business fell through, for

want of suitable attention here, we the bereaved family felt the loss of our true and substantial friend and second father, had Uncle Morrow survived my father, he would have had justice done his helpless family, much more do I lament the loss of the Society of those for their own sake, than any other considerations; I lost my father early, but my affections were unbounded, and had no comparison, only in that I felt for Uncle Morrow, which was a Parental attachment, I should have always to lament that I was not sensible of such an important friend untill it was too late to express the grateful feelings of my heart where his Memory and that of his friend particularly lives and will be carefully cherished 'till it ceases to beat, the indulgence of those tender sensations my friend if not profitable are not unlawful say you but after all those pursuits have failed we look beyond time and Confess their vanity and happy are they who can say in the presence of him who is the wise disposer of all things thy will be done and from Substantial ground look forward to the happy period when they shall relinquish all sublunary things in the enjoyment of a Blissful eternity.

I am dear friend yours most respectfully

SUSAN K. SKILES.⁴

LETTER OF FERDINANDO FAIRFAX TO DR. EDWARD RUMSEY

City of Washington 11th May 1815[?]

Sir,

Having by written agreement made an arrangement with Mr. George D. Minor, which we will show you, I beg leave to say that though I have not the pleasure of a *personal* acquaintance with you, I am desirous of engaging your talents as a scientific engineer in establishing a SteamBoat on the Ohio on the most approved principles of the late Mr. Rumsey's inventions in which Boat I could wish you to hold an Interest Independent of the part of those inventions which I have contracted for (and which chiefly consist of certain improvements or modifications of the modes he formerly patented by his agent Jos: Barnes, in the U. S.) I have the requisites of a Steam Boat, according to what in present use

4. *Boteler Manuscripts.*

are declared [?] the *best* modes, besides others which I deem still more promising. But being willing to give a fair trial to what a man of Mr. Rumsey's Jenius and sagacity deemed important, it seems to me, that you are the most likely man to effect this. If by letter you signify your willingness to engage in such a plan, I will send forward proposals for a Company, which I doubt not will most readily be formed, when you shall show (which I will enable you to do) the broad ground of right whereon I stand, and that I have been desirous to remove out of my way, by fair purchase, those claims which even *remotely*, threatened to come in collision with me.

To this I will add that with your concurrence as Exr. of Mr. James Rumsey, I have hopes of getting from Congress, either a renewal of that Privilege, which constituted the chief value of his claims, or a grant of money, in lieu thereof, for the benefit of his heirs; and that it will give me particular pleasure to be instrumental therein. Since I became acquainted with the merit of the conflicting claims of Rumsey and of Fitch, it has appeared to me, as a thing to be lamented, (both for the public and themselves) that they did not so far divest themselves of the pride of authorship or first invention, as to combine their claims, which would have concentrated a large Patronage of able and wealthy men, whose united effort would probably have been effectual to establish Steam-Navigation twenty-five years ago. As, however, they were not prudent enough to do this, and as they were not able finally to settle the point of honor between them; it will only remain for me to use the names of them *both* to procure from Congress a bounty for their Representatives: To which end I have it in my power to set in motion several springs of action, which may unite in the general object not only the Heirs of those *Fathers* of steam navigation, but also the few who survive of their respective companies.

To conclude, I may say, that, should Rumsey's *old Patents* be renewed for the good of his Representatives, it will be easy for you and myself to arrange the terms on which they shall use, along with those rights, the *improvements* which I now bargain for with Mr. Minor, in exchange for a limited use of the original rights.

I shall be thankful for your ideas and information on the subject of the merits of your brother's inventions. If it be within your knowledge or belief that Mr. James Rumsey's former Patents from the United States were not taken out of the office, let me have your affidavit or solemn Declaration to this effect.

Very respectfully, I am
Sir, Yr. hble Servt
FERDNO. FAIRFAX.

P. S. I understand you use one of Mr. Rumsey's Boilers in Distillation and have no objection to continue to you its use in your own Establishment.

Doctor Edwd Rumsey
Christian County
Kentucky⁵

LETTER FROM JAMES RUMSEY SKILES TO JAMES D. RUMSEY
Louisville 17th Jany 1836

Dear Cousin,

I have spent the last 20 days here and at Frankfort. At the latter place I saw much that was interesting & much that was otherwise as you may well judge, & it is not my intention in this communication to say much of what is now engaging the attention of our Legislature. The cause of Internal improvements is fairly in the ascendant, and I have now strong hopes of seeing the early accomplishments of the project, which has had all my mental energies enlisted in its behalf, and for which I have risked my health nay my life and private fortune in the night & in the day for the last 5 [years], often vainly trying to accomplish in the Legislatures without these risks—I mean the slack water navigation of Green & Barren Rivers. How happy are you to have escaped so far and God Grant you may always do it, the snares, into which our scheming race, in the direct and collateral lines seem destined to fall—weary days & sleepless nights & I am constrained to say ungrateful returns, and the rewards which such men receive.

It is said that men will forgive any offence sooner than ridicule, there is one thing else, which they are slow to for-

5. *Burnett Collection.*

give, the acquisition of fame, from the accomplishment of an enterprize which reflects discredit upon [their] own public spirit, or upon their capacity or energy, this will not. And yet every man who accomplishes a great object is compelled to give this offence, for he finds not only the natural obstacles to his projects staring him in the face but he finds mortified pride, selfish interests, Ignorance & prejudice, in the persons of the very people he wishes to serve, marshalled in appalling array against him.

His name is then against his wish singly Identified with the worst, and by leaving him alone and unaided, they threaten his own ruin as well as the ruin of his project. It is really remarkable that the most potent and wakeful opponent I have had & who bear[s] with least composure to hear my name coupled with the improvements of Green River, was pressed to take an interest in the enterprize, nay urged repeatedly, and pronounced the project ephemeral and hopeless. Had he embarked with me, being my senior in business and active means, he would have been inevitably considered the prominent man in this enterprize, and what is now his private means, increased by several thousand dollars. As it is his opposition, watchful, indefatigable objections has more than once threatened the ruin of my private means, when I was surrounded with sickness, beset by adverse circumstances, and bending every effort for the public good —

But the picture shall now be changed and first your friend by aid of kind providence, has been able to sustain high commercial credit, the friendship and confidence of many of the best men in the state and in the 11th year since he made a private and first application to the Legislature for a few hundred dollars to remove the [illegible] brush in Barren & Green Rivers and 9 years after he left the legislature in despair, having only obtained in 3 years of application a board of Engineers to make the surveys, without a dollar in money — In this short time this project has not only progressed, but is certain of speedy completion — And strange to say there are not now in the County of Warren 10 Citizens who have ever seen one of our [illegible] or who can give the extent of our lockage and the depth of water, or the size of boats which may pass them —

In passing through the City yesterday I was struck with the notice of a rotary wheel or engine. I went to see it & shade of departed & unrequited genius what should it be but the Reaction Wheel of James Rumsey or rather I should say the Barkers wheel the principal of which haunted the imagination of that great man throughout all his efforts to apply steam to boats. This engine is remarkable and I will explain it. . . . The engine is 4 feet across, the case is like two shells screwed together and the arms fly in this at an inconceivable velocity discharging the steam in the open air within this case which merely prevents it from doing damage and turns lathes and a circular saw. They have some for sale much larger, success never crowned their efforts until they reduced the openings.

Yours very sincerely

J. R. SKILES.

I almost fear that you cannot read this scrawl or understand the rude diagrams, it is Barker's wheel in a case. If I live to see a time of Leisure I will show you a boat which will run on the plan of Rumsey, with smooth and regular motion and at any possible speed. have you told Johnson to go ahead in his effort with Congress? We ought to give him legal authority forthwith and let him make use of it or act as he pleases.⁶

⁶ *Burnett Collection.*

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